3. IMPLEMENTATION PLAN

The Implementation Plan provides the roadmap—or approach—to get from the current "as is" environment (described in **Section 1**) to the Service Center vision "to be" environment (detailed in **Section 2**). The Implementation Plan addresses the entities involved, methods, and milestones to achieve the implementation of the vision of:

- One-stop shopping.
- Quality customer service.
- Reduced cost.
- Partnership.

The purpose of this section is to describe the methodologies to achieve these objectives.

Centers—The Teams

The Service Center Implementation Team (SCIT) is reengineering the way the USDA does business in its Service Centers. A chain of USDA personnel support customer service delivery, including field personnel in the Service Centers, state office-based support staff and technical experts, business leaders at headquarters, and IT support organizations in the Development Centers. Neglecting the role of any of these groups gives a false picture of the organization's needs. To obtain input from all these entities, SCIT works with three primary teams, or centers:

Business Integration Center—Located in Beltsville, Maryland, cross-agency teams and support contractors work together to refine and implement the Service Center vision. All layers of the architecture—business, applications, data, and technology—are represented at the Business Integration Center. In addition to staff based at the Business Integration Center, participants from other parts of the organization support meetings via teleconference, travel, or by hosting meetings. The Business Integration Center includes demonstration and training facilities as well as the Inter-Operability Lab. The Inter-Operability Lab serves a number of purposes: 1) it replicates a Service Center to allow testing in a simulated environment—including legacy hardware and software, the new Common Computing Environment (CCE) and the LAN/WAN/Voice (L/W/V) connectivity—thus relieving the pilot sites of some of the testing (and error resolution) burden; (2) it deploys software to the pilot sites; (3) it is responsible for configuration management of the pilot sites; (4) it safeguards security concerns for the SCI; (5) it controls the network for the pilot sites; and (6) it serves as second-tier help desk support for pilot site maintenance.

Pilot Sites—Nine representative Service Centers were selected from across the country to provide input into reengineered processes and generate feedback on the reengineered projects. The idea was that, rather than rolling out the reengineered business processes and their supporting applications directly to the field, the processes and applications would first be tested in a small sample of Service Centers. The Service Center pilot sites field test the reengineered business process and provide direct user input into SCI's business reengineering activities. This approach supports iterative development and institutionalization of the reengineered business practices.

These sites are essential to ensuring that applications do indeed support the business needs in the newly architected, distributed computing environment. It is during the pilot integration and testing phase that training strategies are developed across core business areas and training plans are validated at pilot sites. Input from pilot sites supports tailoring of training and ensures that training focuses on meeting

Service Centers' business needs while leveraging new technology. Thus, the Service Center pilot sites are a vital link to modernizing Service Center operations and transitioning the reengineered business practices throughout the USDA county-based Service Centers.

Non-Pilot Service Centers—After being reengineered in the Business Integration Center and field-tested in the pilot sites, the reengineered business process is finally ready to be rolled out to the non-pilot Service Centers. Thus, implementing improved business practices within the USDA county Service Centers is an incremental, iterative approach. This phased implementation of improved business capability leverages improved business processes across the four core business areas to deliver quality customer service, enhance the capability of Service Centers, and reduce costs.

Common Computing Environment (CCE) Investment Strategy: Strategic Office Locations

The ongoing Service Center Common Computing Environment (CCE) investment strategy has been planned around installing a similar technology configuration in every Service Center. As of the end of fiscal year 1999, Service Center partner agencies have spent more than $320 million to support SCI, of which $188 million has gone to CCE and telecommunications investments. A shared telecommunications system has essentially been implemented and nearly 30,000 of a planned 38,000 interchangeable workstations have been purchased as well as more than 7,000 shareable printers. Future acquisitions will complete these components and begin the acquisition of the more expensive components, including application, network, and Geographic Information System (GIS) servers as well as public access servers. The reality of limited investment funds together with changes in technology and improvements in telecommunications capabilities necessitates and creates the opportunity to revise this investment strategy.

The new CCE strategy will focus on identifying a smaller number of Service Centers as "core offices" or centers of investment that will house the information technology (IT) infrastructure, which will be accessible to all offices through a robust telecommunications network. Utilizing this strategy, the capital investment cost will be significantly reduced, but the benefits of the new technology will still be available to all offices as well as to the increasing number of "mobile" employees, who will be able to access information through laptop computers operating through modems tied to regular phone lines or cell phones. Non-core offices will receive the same services as core offices, without the necessity to house and manage an increasingly complex server environment. Non-core offices would exist where there was a program delivery or economic justification to do so, but would receive little or no technology investments beyond personal workstations, printers, and telecommunications connectivity—thereby significantly reducing the overhead cost of smaller, non-core offices. Limited IT staff and other specialists can also be more effectively used in supporting an infrastructure concentrated in fewer locations. It is anticipated that various components may be housed nationally, regionally, at the state level or on a multi-county basis, depending upon technical and business requirements.

The network of core centers of technology investments will be identified during fiscal year 2000 before any central server investments are made and in line with the following major milestones:

- ***Develop criteria for the core centers and have approved for action by December 31, 1999.***
- ***Identify the number and location of the core centers by June 2000 to target fiscal year 2000 investments in the last half of the fiscal year.***

The criteria for selection will include both technical aspects of the CCE and business aspects of the Service Center delivery of partner agency programs. Detailed activities and milestone dates are included in the updated CCE project plan (See Appendix I). Preliminary estimates suggest that a series of 1,000 to 1,200 core offices fully linked by telecommunications to clusters of non-core offices and to State and national offices would be technically feasible under this concept.

Implementation of the CCE on a "core center" basis would significantly reduce capital investment costs and bring the CCE into full operational status in fiscal year 2002, depending upon funding stream. This strategy would shorten the time frame for reliance on old, costly and increasingly unreliable legacy systems and will accelerate the benefits that would otherwise be foregone with a longer implementation period. This strategy also would allow for the optimal use of an increasingly smaller IT support staff and provide for a shared flexible technology infrastructure to accommodate anticipated future changes in programs. As CCE implementation moves forward, investments in maintaining and improving the agency legacy systems will be limited to only those that are essential to maintaining program delivery.

Phases

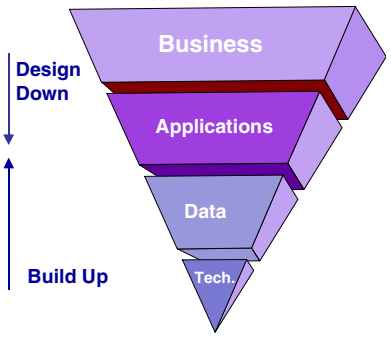
Rather than viewing this initiative as a single effort, the SCI team divided it into a series of phases. These phases are marked by the degree to which the modernization effort has been implemented in the different types of centers. These phases are:

Phase I—Initial Integration and Testing.
Phase II—Pilot Integration and Testing.
Phase III—Virtual Service Center.
Phase IV—Business Optimization.

Each phase delivers improved capabilities and furthers the objective of the Model Service Center, based on business needs, to best serve the customer and community. **Section 3.1** details each of the four incremental phases involved in attaining the objective Service Center. **Section 3.2** describes the state of the business and its supporting applications, data, and technology at the end of each phase. **Section 3.2** contains matrices depicting actions and capabilities being implemented within the implementation phase by program location (integration center, pilot sites, and non-pilot Service Centers) and architecture (business, application, data, and technology). The matrices capture the maturation of business capabilities and the supporting infrastructure as they roll out to all Service Centers.

Architectures

As indicated in **Section 2.3**, SCI is using an architectural approach to achieving its vision of the Service Center of the future.



Just as the capabilities of the Service Centers evolve over time, so will the capabilities

available within the architectures. **Section 3.3** describes how each component of each architecture will evolve during this effort's phases.

Projects

The best method by which to manage an initiative of this magnitude is to divide it into a series of individual, but related, projects. **Section 3.4** details the individual projects, whether completed, ongoing, or anticipated.

Section 3 includes:

3.1 Phases

In this section of the modernization plan, we describe what is happening in each of the four SCI phases. **Figure 3.1-1** shows the primary focuses during each phase.

3.1.1 Phase I: Initial Integration and Testing

The initial integration and testing phase marks the beginning of the SCI. During this phase, the foundation across the partner agencies and communities to support Service Center modernization efforts is established. The driving force behind this initiative is to provide improved customer and community service at reduced costs. The Secretary's vision for realizing this is the establishment of one-stop Service Centers. Customers are able to meet their needs with fewer and shorter visits, and obtain USDA services regardless of USDA specialists available.

During this phase, an assessment of current business practices provides a baseline of current business practices. In conjunction with this assessment, a gap analysis identifies process improvement opportunities. Prioritizing reengineering efforts based on core business needs focuses scarce modernization resources to provide maximum return on investment. Realizing and institutionalizing these reengineered business processes across Service Centers and partner agencies will mark the success of this initiative and the implementation of the one-stop service.

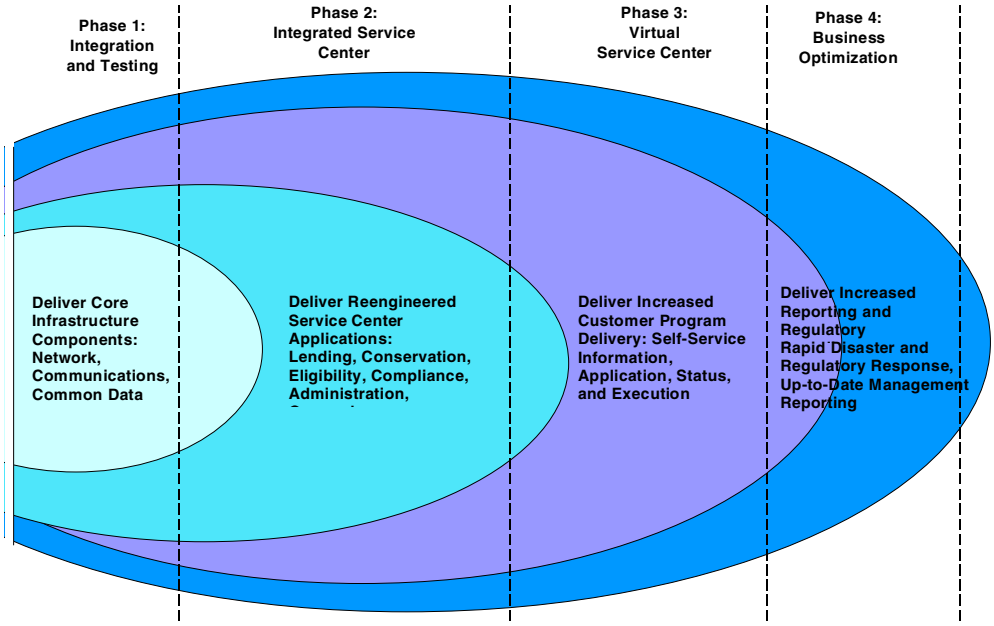


Figure 3.1-1. Major Phase Focuses

In many instances, enabling technologies—including business applications, data and data management practices, and developing a technical architecture—support the reengineered business practices. During this initial integration and testing phase, applications development focuses on prototype development and proof-of-concept demonstrations. These early development efforts act to further refine requirements, validate interface points, mitigate program risk areas, and gather baseline business process measures to support modernization priorities and resource allocation.

Phase I emphasizes establishing the underlying organizational infrastructure (including the business integration center, pilot sites, interoperability lab) and the control processes required to support the overall Service Center initiative.

- The Business Integration Center is composed of business area teams, the interoperability laboratory, the data management team, the CCE team, and the L/W/V team. The integration center provides the resources and structure to integrate the business processes, data, and technology (CCE and L/W/V) across agencies and across programs. Pilot sites were identified and established.
- The Interoperability Laboratory is an integral part of the business integration center and acts to address integration, interoperability, quality control, and configuration management of application development efforts and the pilot deployment of those supporting business applications.
- Pilot sites were identified in a pilot selection process. The nine BPR pilot sites selected represent an equitable distribution of field Service Centers nationwide, both operationally and functionally. Pilot sites provide a mechanism to validate business processes, their supporting business applications, and the distributed computing environment.
- Control processes were established to ensure overall project management and

quality review of ongoing modernization efforts. This included developing a revised information technology waiver process. The revised process ensures initiatives coordination, reduced duplication, effective resource allocation, and appropriate integration into the overall SCI. An important aspect of the waiver process was the incorporation of the SCI business integration center into the review process.

Accomplishing these initiatives is essential to establishing an effective infrastructure to support modernization efforts, effectively manage critical resources, and ensure integration across business and technology areas, as well as across agencies.

Figure 3.2-1, which begins on page 3-8, depicts the activities accomplished in **Phase I: Initial Integration and Testing** in the business integration center, the pilot sites, and in the non-pilot Service Centers.

3.1.2 Phase II: Pilot Integration and Testing

During this phase, nine pilot sites are integrated as a cohesive part of the SCI. Initial business capabilities implemented at pilot locations include support for establishing a customer management foundation; improved conservation planning; standard lending practices; streamlined program application; and increased services to the under-served.

The pilot sites model an integrated Service Center that provides the primary elements necessary to support the cross-agency services delivery and access to shared information. Pilot Service Centers are able to assess and meet the needs of customers. The underlying technology, data, and applications architectures exist to provide cross-agency services. Service Center personnel are well trained and possess a cross-agency understanding; they are USDA service providers who are enabled by a seamless environment with integrated processes and business applications. The objective technical architecture is installed across Service Centers. Shared data exists across processes, applications, and agencies. Telecommunications infrastructure is being enhanced to support implementing web-based business applications and revised Service Center processes.

Phase II implements several nationwide activities supporting overall modernization efforts, including completing collocation efforts, completing improved telecommunications capability with the LAN/WAN/Voice project, and deploying nearly 12,000 workstations to support Year 2000 (Y2K) requirements.

Figure 3.2-2, which begins on page 3-11, depicts the activities accomplished in **Phase II: Pilot Integration and Testing** in the business integration center, the pilot sites, and in the non-pilot Service Centers.

3.1.3 Phase III: Virtual Service Center

The Virtual Service Center Phase emphasizes the movement and maturation of improved business capabilities to the field. Initially, the improved business processes are implemented at selected pilot locations, followed by the institutionalization of cross-agency business processes and supporting infrastructure nationwide. The CCE and initial L/W/V capabilities are in place and ready to support the new business applications and processes. Incremental delivery of this capability will support additional gap analysis, developing emerging business requirements, and the continued maturation of the Service Center.

The virtual Service Center realizes the vision of one-stop service being provided anywhere, at any time. USDA services are accessible electronically, with seamless customer access to information. Customers can apply for programs and services remotely from any loca-

tion. They can obtain answers to questions, query intelligent systems, and use conservation and farm modeling tools from their homes. If USDA specialist services are required, those services can be scheduled for on-site service or for electronic or telephonic response to general inquiries.

The virtual Service Center focuses on customer and community service. Business process measures are collected both electronically and at Service Center locations to identify service improvement opportunities. USDA services and resources are targeted based on community and customer needs.

Service Centers share information globally across the USDA, and leverage expertise from across the country to best serve the customer. A true distributed computing environment provides the catalyst for increased sharing of information and trans-Service Center communications.

Investments to be made in fiscal year 2000 will build on these replacement systems to address established business priorities. Priorities for investments in fiscal year 2000 will be providing connectivity for the workstations acquired previously and connectivity with legacy systems to bridge the legacy environments and the reengineered applications, and initial support for reengineered processes and automated applications.

Figure 3.2-3, which begins on page 3-14, depicts the activities accomplished in **Phase III: Virtual Service Center** in the business integration center, the pilot sites, and in the non-pilot Service Centers.

3.1.4 Phase IV: Business Optimization

This phase represents the evolution of Service Centers to the point at which Service Centers work in concert with communities to tailor USDA programs and services to best meet community needs. USDA customers and communities are the basis of all actions and improvements. Improvements are based on process and performance measures. Service Centers are able to assess and anticipate customer and community needs. Based on analysis and joint community assessment, Service Centers are empowered to adapt and tailor USDA services to best meet community objectives and goals. USDA becomes a community partner to ensure a safety net and continued health of customers and land resources.

Figure 3.2-4, which begins on page 3-19, depicts the activities accomplished in **Phase IV: Business Optimization** in the business integration center, the pilot sites, and in the non-pilot Service Centers.

3.2 What Is Happening in Each of the Center Types in Each Phase?

The previous section provided an overview of each SCI phase. This section provides a more detailed look at what is happening in the business implementation center, the pilot sites, and the non-pilot Service Centers in each of the four phases. The evolution of each of the architectures (business, application, data, and technology) as it is occurring in that type of center is described. By reading down the columns, one can see how the architectures are evolving through the phases in each of the types of centers.

- **Phase I:** Initial Integration and Testing, page 8.
- **Phase II:** Pilot Integration and Testing, page 11.
- **Phase III:** Virtual Service Center, page 14.
- **Phase IV:** Business Optimization, page 19.

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Business	• Develop current business activity model • Prioritize initiatives • Assess current business practices • Reengineer business practices • Develop and document requirements • Develop project plans • Implement project level management practices • Train pilot sites • Establish measurement approach • Measure impact of processes and improved service • Obtain feedback from users • Validate business practices • Conduct business case analysis	• Improved communications across Service Center agencies and with customers • Increased research and analysis capability • Provide common customer file structure • Pilot shared customer information • Validate mobile conservation planning process and environment (Customer Service Toolkit) • Improved Administration capabilities - Integrated HR process - Single budgeting process - Improved property and asset management	• Colocate agencies across 2,500 county-based Service Centers. • Improved communications
Application	• Identify project integration opportunities to support business operations • Establish application configuration management process • Integrate COTS into application architecture • Manage applications development • Test applications for compatibility and interoperability • Distribute applications and system environment	• Pilot integrated COTS applications (Office automation, Database applications, GIS applications) • Pilot test supporting business applications • Service Center Organizer (SCO) - Common user interface - Electronic customer folder - Access to supporting Service Center applications - Linkage to shared customer files - Generation of mailing lists - Generation of customer correspondence • Customer Information Management (CIM) - Shared basic customer information within local Service Centers - Access to basic customer information - Ability to add, modify, and delete shared information	

Figure 3.2-1. Phase I: Initial Integration and Testing (Page 1 of 3)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Application (cont'd)		• Integrated Office Information System (IOIS) - Pilot usage of electronic forms - Populate forms from central data repository - Provide supplemental customer information • CAMS - Integrated HR System - Integrated budget and financial management system - Property and asset management system • Customer Service Toolkit (CST) - Remote conservation planning capability - Linkage between customer information and conservation plan - Maintain conservation planning correspondence - Use of geospatial data - Ability to modify land information - Leverage COTS GIS • Verify application design against business requirements • Demonstrate feasibility of technology	

Figure 3.2-1. Phase I: Initial Integration and Testing (Page 2 of 3)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Data	• Develop enterprise-wide data management standards • Establish procedures and framework for data administration • Develop enterprise data architecture • Develop enterprise data model • Develop data warehousing strategy • Develop initial data repository • Implement data stewardship program • Define data management tools requirements • Facilitate development of enterprise data/application server requirements	• Implement initial shared data environment • Provide common access to data across agency • Integrate pilots into enterprise • Demonstrate common data concept—customer information • Demonstrate use of geospatial data	
Technology	• Provide technical infrastructure: common computing environment, basic telecommunication/connectivity • Begin ordering workstations for Y2K solution • Continue evaluating technology components & approaches • Begin I/O lab testing of business requirements identified for legacy and reengineered business processes • Conduct market analyses of changing technologies to determine final CCE architecture • Complete Y2K Certification for L/W/V • Complete L/W/V Security Certification • Determine final CCE Technical Architecture • Determine best solution for connectivity of legacy systems to L/W/V network • Conduct and review recommendations of IV&V of chosen connectivity solution	• Begin installing L/W/V solution in Service Centers • Install frame relay • Test and evaluate three potential solutions for connectivity of FSA legacy systems to the L/W/V project network • Enterprise modeling of technical architecture alternatives	• Installation of L/W/V solution in Service Centers • Begin installing L/W/V solution in other county offices

Figure 3.2-1. Phase I: Initial Integration and Testing (Page 3 of 3)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Business	• Identify and prioritize business reengineering opportunities • Institutionalize effective management practices across projects • Provide project management • Identify and develop integrated training programs • Prioritize migration of legacy systems • Develop transition and adoption plans	• Pilot reengineered practices • Obtain feedback from users • Refine processes and requirements • Measure impact of processes and improved service • Identify integration opportunities • Validate business practices • Train pilot sites • Pilot integrated training programs • Improve delivery of USDA services to pilot under-served areas • Shared customer and land information • Conservation planning • Access to conservation planning models and information • Improved wetlands determination • Streamlined easements monitoring • Improved wetlands and easements accuracy • Conservation analysis • Provide accurate, consistent maps • Enable accurate and responsive conservation resource assessments • Focus USDA conservation services to mitigate potential area ecological degradation • Common lending process • Loan pre-qualification • Increased distribution of USDA services to under-served areas • Distributed program application process • Provide feedback • Business case analysis	• Complete colocation of agencies across 2,500 county-based Service Centers.

Figure 3.2-2. Phase II: Pilot Integration and Testing (1999) (Page 1 of 3)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Application	• Initiated migration of legacy systems • Integrate new systems into Service Center system • Ensure appropriate interfaces with legacy systems • Provide web-based interface • Provide user integration testing • Assess legacy system connectivity alternatives (SNA Gateway; AS36 Upgrade)	• Continue revising interfaces to integrate applications into a seamless system • Common look & feel across applications • Pilot business applications supporting customer management, conservation planning; community development; lending; underserved service delivery; and administration (CAMS, Directives, SCO, CIM, CLU, IOIS, CST, W&E, CARAA, Demographics, Lending, MFH, Outreach) • Lending - Loan pre-qualification - Access to common lending information • Distributed program applications • Online access to information sources • Pilot integrated applications • Core Applications/Customer Management Environment (SCO-CIM-CLU-IOIS) • Conservation Planning (CST-Wetlands-Easements-CARAA-Soils Data Interface) • Wetlands - GPS digitizing of certified wetlands • Easements - GPS generated graphically displayed easement boundaries - Graphical/tabular monitoring data • CARAA - Improve accuracy of identifying priority conservation areas • Wide area ecological environmental analysis • Pilot Resource Data Gateway	• Office automation environment • COTS infrastructure

Figure 3.2-2. Phase II: Pilot Integration and Testing (1999) (Page 2 of 3)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Data	• Manage data administration program • Expand physical enterprise data architecture • Validate data repository enhancements • Train database administrators • Evaluate alternatives for legacy data migration • Implement data warehouse technical infrastructure • Manage data change control process	• Migrate legacy data • Enhanced data warehouse ability • Pilot revised data standards • Pilot Resource Data Gateway • Geospatial data and layers integrated with data architecture accessible cross Service Center boundaries	
Technology	• Acquire additional workstations (same make, model, configuration of earlier acquisition) • Acquire additional software and peripheral equipment to improve functionality of new workstations to better meet the business needs of partner agencies • Evaluate alternatives for providing legacy connectivity, communications, file servers, security, and remote administration at each Service Center as a result of reduced funding • Procure network server solution identified in CCE architecture • Procure application server solution • Procure RDBMS solution identified in architecture • Transfer sustainment of L/W/V	• Install and pilot legacy connectivity solution • Laboratory testing of possible CCE applications & data servers • Analyze Pilot site testing solution • Install & test network server solution • Install & test application server solution • Install & test RDBMS solution identified in architecture • Pilot mobile outreach vans • Wireless communications • Pilot outreach kiosks	• Install L/W/V at 100-percent compliant/ certified Service Centers • Deploy 12,000 workstations for Y2K solution

Figure 3.2-2. Phase II: Pilot Integration and Testing (1999) (Page 3 of 3)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Business	• Prioritize legacy system migration • Reengineer business practices to support legacy system migration • Provide project management • Integrate new business processes into Service Center environment	• Validate integrated business practices • Pilot usage of measurable processes and improvement • Empower Service Centers to adapt to customer and community needs • Pilot reengineered processes to support migration of legacy systems • Recommend additional improvement opportunities	• Improved customer management • Assess customer needs • Track customer program status • Reduced customer paperwork • Access to program instructions and public information • Shared customer and land information. • Conservation planning • Access to conservation planning models and information • User adaptable environment to support area assessment and conservation planning • Improved wetlands determination • Streamlined easements monitoring • Improved wetlands and easements accuracy • Conservation analysis • Provide accurate, consistent maps • Enable accurate and responsive conservation resource assessments • Focus USDA conservation services to mitigate potential area ecological degradation • Common lending process • Loan pre-qualification • Increased distribution of USDA services to under-served areas • Distributed program application process

Figure 3.2-3. Phase III: Virtual Service Center (Page 1 of 5)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Business (cont'd)			• One-stop service through integrated approach • Full geospatial processing capability • Skilled/trained employees • Multiple access to information • Improved flexible program delivery • Administrative convergence completed • Understanding of customer and community needs and managing those needs • Adapts to changing community environment • Collect and measure process quality
Application	• Integrate new applications into Service Center environment • Provide configuration management of application architecture	• Pilot reengineered business applications to replace legacy applications • Pilot common lending applications • Pilot enhanced conservation planning environment • Pilot integrated customer and land management environment • Pilot web-based interfaces • Provide seamless access to distributed data • Pilot embedded intelligent applications to learn and assess user and Service Center information needs	• Common look and feel across applications • Online access to information sources • Web based conservation planning and engineering tools • Seamless interface between applications and information sources • Continual collection and assessment of performance measures to include work flow, quality of service, effectiveness, and responsiveness • Deploy initial applications: CAMS; MFH; CST; W/E; CARAA; CLU; CIM; IOIS; SCIMS; Lending; Directives; Demographics • Service Center Information Management System (SCIMS) - Common user interface - Electronic customer folder - Access to supporting Service Center applications - Linkage to shared customer files - Generation of mailing lists - Generation of customer correspondence

Figure 3.2-3. Phase III: Virtual Service Center (Page 2 of 5)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Application (cont'd)			• Customer Information Management (CIM) - Shared basic customer information within local Service Centers - Access to basic customer information - Ability to add, modify, and delete shared information • Integrated Office Information System (IOIS) - Pilot usage of electronic forms - Populate forms from central data repository - Provide supplemental customer information • Common Land Unit (CLU) • CAMS - Integrated HR System - Integrated budget and financial management system - Property and asset management system • Customer Service Toolkit (CST) - Remote conservation planning capability - Linkage between customer information and conservation plan - Maintain conservation planning correspondence - Use of geospatial data - Ability to modify land information - Leverage COTS GIS • Wetlands • Easements • CARAA

Figure 3.2-3. Phase III: Virtual Service Center (Page 3 of 5)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Application (cont'd)			• Lending - Loan pre-qualification - Access to common lending information • Initial migration of legacy business applications • Web-based applications • Remote ability to submit program applications and requests • Deploy reengineered business applications • Access to conservation tools to assist in smart farming • Seamless access to information from anywhere, anytime
Data	• Manage data administration program • Expand physical enterprise data architecture • Validate data repository enhancements • Train database administrators • Evaluate alternatives for legacy data migration • Implement data warehouse technical infrastructure • Manage data change control process	• Support legacy data migration	• Shared customer and land data • Distributed and shared data • Establish virtual enterprise data warehouse • Warehouse technology implemented • Deploy Resource Data Gateway • Deployment of geospatial data and layers (250-500 Service Centers/yr) • National implementation of geospatial information; including DOQs, Digital soils, and land units

Figure 3.2-3. Phase III: Virtual Service Center (Page 4 of 5)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Technology	• Procure GIS server solution based on accepted CCE Architecture	• Install & Test GIS server solution • Implement Legacy Connectivity	• Complete installation of L/W/V in all certified USDA offices (in addition to state and Service Centers) • Complete frame relay installation • Complete installation of all CCE technology as noted in CCE architecture • Install legacy system (System 36) connectivity solution to 2,500 Service Centers • Deploy Desktop GIS (fiscal year 2000—500 Service Centers; fiscal year 2001—1,000 Service Centers) • Deploy additional desktops (fiscal year 2000—5,000 desktops; fiscal year 2001—3000) • Deploy Application servers (fiscal year 2001—2,500 Service Centers) • Deploy mobile outreach vans • Wireless communications • Deploy outreach kiosks • Establish measurement to assess and anticipate increased throughput requirements

Figure 3.2-3. Phase III: Virtual Service Center (Page 5 of 5)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Business	• Assess improved business practices • Promulgate improved shared practices across Service Centers • Identify improvement opportunities	• Pilot reengineered business processes	• Anticipate internal and external customer needs • Integrated view of USDA and services provided • USDA services provided to underserved areas • Ability to target USDA resources • Improvements based on customer and community needs • Integrated Eligibility and Compliance Processes • Respond to changing conservation needs and priorities • Reduced cost of assessment and improvement implementation • Implement continuous and measurable improvement • Anywhere, anytime service to customers
Application	• Configuration manage application architecture • Integrate technology with applications to support business improvements and application environment	• Pilot new applications. • Pilot new application architectures.	• Elimination of legacy applications • Deployed reengineered business applications • Web-based applications • Use of intelligent software agents • User tailored applications
Data	• Train database administrators • Train data management tools • Assess data architecture requirements • Reevaluate data repository support for legacy data migration • Evaluate emerging data technologies		• Optimize data management • Complete data sharing • Geospatial data available anywhere, anytime • Data available in usable format for USDA Headquarters analysts

Figure 3.2-4. Phase IV: Business Optimization (Page 1 of 2)

Architecture	Business Integration Center	Pilot Sites	Non-Pilot Service Centers
Technology	• Continue researching emerging technology to keep up with efficiency requirements in a evolving environment	• Validate technology and infrastructure improvements	• Optimize use of technology • Technology enabling implementation of change based on USDA needs • Throughput requirements adaptable based on Service Center needs • Continual refreshment of technology to meet Service Center, customer, and community needs • Maintain CCE architecture to include H/W, S/W, peripherals, etc. • Maintain L/W/V connectivity

Figure 3.2-4. Phase IV: Business Optimization (Page 2 of 2)

3.3 How the Architectures Are Being Developed in Each Phase

The Service Center vision implementation is being accomplished by focusing efforts along different tracks. These tracks, or architectures, are business, applications, data, and technology (CCE and L/W/V). Although they are handled separately, the architecture development is interdependent. For example, deploying technology too quickly to the field leaves the Service Centers with underused, aging equipment. The other extreme is also true—deploying technology infrastructures (such as L/W/V and servers) after the applications are ready for deployment leaves the field waiting when business improvement benefits could be realized. The strategy for selecting the CCE relied on gathering business requirements from the projects and users. This has been a challenge in timing—by the time the projects can express their requirements, the requirement for a technology decision becomes time-sensitive. Careful communication is required between the teams. A feedback loop has been established to gather business requirements, anticipate timing, and communicate those to the technology teams. In the same manner, creating a business case to justify increased L/W/V capacity has been difficult to build before BPR projects were ready to deploy to the pilot sites and better gauge the packet sizes and response time requirements—leaving little time for the technology teams to put the technology architectures in place for the enterprise. One way the technology teams have supported this interdependency is to build a simulation model of the environment so that "what if" scenarios can be tested in a laboratory environment before the need in the field becomes too acute. **Figure 3.3-1** shows the timeframes involved for the implementation of these architectures.

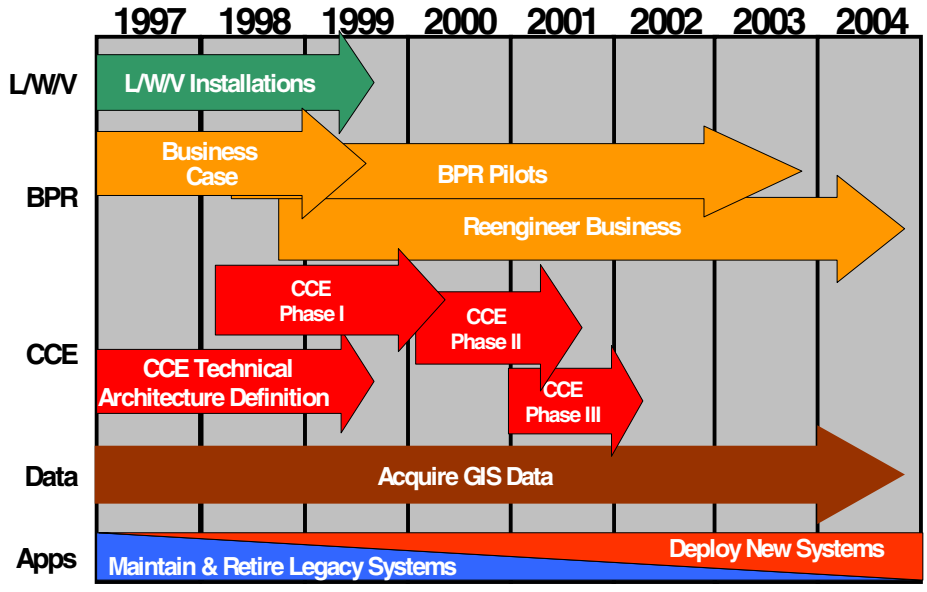


Figure 3.3-1. SCI Program Overview

In the rest of this section of the Modernization Plan, we focus on describing how the business—along with its supporting applications, data, and technology—changes over time.

3.3.1 Business Architecture

3.3.1.1 Community Development

Community development will reengineer the way front-office outreach activities are performed by the Service Center. This will be done in partnership with state and national outreach councils as described in **Section 2.3.1.1.1, Community Development**. Implementation of county outreach plans will facilitate the accomplishment of state outreach goals outlined in state plans, resulting in positive improvements in previously unserved areas. Through this delivery system, the USDA will be able to increase access to historically under-served customers and remotely located communities. The community development schedule is located in **Appendix Q.**

Phase I

Objectives

Develop the Foundation. Phase I objectives focus on developing the necessary sponsorship to move forward with the reengineering effort and also on establishing a team of field staff from FSA, NRCS, RD, Cooperative Extension Service, and others involved in outreach and community development at the local level.

Results and Benefits

- Obtain Service Center agency consensus on the Community Development Business Area vision.
- Identify business processes to reengineer.
- Contact Service Center agencies' business leaders to define the business area, develop scope and establish objectives of reengineering.
- Identify the "as-is" environment and formulate a "to-be" vision for key community development business processes.
- Identify BPR projects to address these key business processes.
- Begin business process reengineering.

During Phase I, USDA outreach and community development organizations assist in identifying key business processes and establishing priorities.

Phase II

Phase II seeks to continue community development improvement. As an important component of improved community development, improvement opportunities are piloted to increase the presence of USDA services in traditionally under-served areas.

Objectives

Develop Integrated, Multi-agency Outreach Process at the Local Level and Provide Mobile Tools To Increase Access to USDA Programs and Services. Phase II is the project's design and development phase. Initial requirements are for both the short and long term. Key elements of Phase II are described below.

- The Community Outreach Cookbook is a handbook of step-by-step, front-office processes (or recipes) that clearly and simply describe "how to" identify underserved communities, conduct assessments to determine local issues, set priorities based on local concerns, establish partnerships/leverage resources, and develop a multi-agency county outreach plan. It provides templates and examples that can be modified by Service Center staff to address the specific or unique needs of their area or region. Successful outreach and program delivery efforts at the local level translate directly to success at the state level.

- Mobile Tools enable the integrated outreach process outlined in the Cookbook. They enhance program delivery to traditional customers while significantly in-

creasing the ability to service under-served areas. (see Enabling Technologies).

Phase II design efforts are coordinated with state and national outreach councils, the USDA Office of Outreach, and partner organizations such as land grant universities and the Cooperative Extension Service. Best practice information is collected, reviewed, and used to design new processes. Training is provided to pilot locations before the test and evaluation phase.

Results and Benefits

Completing Phase II will produce the following results at the local level:

- Improve capacity in under-served areas.
- Eliminate barriers preventing under-served customers from accessing USDA programs.
- Build Service Center capacity for targeted outreach to under-served (i.e., staff will better understand how to conduct outreach and use appropriate strategies and tools).
- Establish mechanisms to encourage under-served individuals, groups, and communities to apply for USDA programs.
- Provide technical assistance to aid the under-served in qualifying for USDA programs, and ultimately improving their quality of life.
- Build partnerships with organizations and agencies already working with target groups, and leverage resources to better meet the needs of the under-served populations and communities.

Enabling Technologies

- Mobile offices are "Service Centers on wheels" that will increase USDA presence in under-served areas. During Phase II, pilot implementation strategies will be developed. Mobile offices will be scheduled and coordinated from the state office and will enable field Service Center personnel to conduct integrated outreach and program delivery activities in under-served areas remotely located throughout pilot states. Equipped with telecommunications, NT server, laptop computers, and printers the mobile office provides the capability to conduct full program delivery activities such as take applications and conduct sign-up, determine eligibility and close loans from virtually any location. In addition, the office can accommodate five to six people for small meetings or educational workshops. Also, the flexibility exists for partner organizations to deliver benefits and services from the mobile office (for example Department of Labor or Department of Education); improving the ability to meet the collective needs of under-served populations. In some areas, the mobile offices will operate in partnership with 1862/1890 colleges assisting black farmers, and 1994 colleges assisting Native American and Hispanic farmers.

  During Phase II, mobile offices will expand USDA's presence on tribal lands in several states, thereby increasing access of Native Americans to government programs and services.

  During the first quarter of fiscal year 2000, the State FAC in pilot states will submit proposals that address how a mobile office would be utilized to reach under-served areas. Proposals include very detailed implementation strategies that cover elements such as who will be responsible to drive, schedule, and maintain the mobile office, partnerships with tribal councils and others to maximize use of the mobile office, and projected annual usage rates and operating costs. Mobile Offices will

be administered under the direction of State FACs.

- Kiosks provide essential information about housing, farming and community development that might not otherwise be seen. Kiosks will be positioned in those under-served communities in the greatest need of information, programs, and technical assistance.

- Network Conferencing/Video Teleconferencing (VTC)—These options provide the ability for quasi-face-to-face contact and programs delivery without traveling to remote areas. In the initial pilot, video teleconferencing equipment, PictureTel Live 200 System, will be installed in the tribal offices of a remotely located Indian reservation. Appointments will be scheduled through the tribal office where the equipment resides, and at the designated times, the Service Center staff will work with Native American customers and potential customers to assess needs, complete applications online, and deliver services. The success of this alternative will be largely dependent on the leveraging of partner resources and close coordination between Service Center staff and tribal leaders.

- Geographic Information Systems (GIS), with natural and human resource geospatial data, will provide a means to identify issues, analyze alternatives in "what if" scenarios, and provide quantitative information that can be used by local communities. GIS will provide local communities with an improved understanding of their local resources. With this understanding, they will be able to make informed decisions and develop more effective solutions.

Phase III

Objectives

Leverage Partnerships To Maximize Outreach to the Under-Served. Phase III completes the reengineering of targeted outreach at the local level. Early in Phase III, two fully equipped mobile vans will be acquired and tested. Policy on the use and operations of the mobile offices will be drafted as it applies to both USDA Service Centers and partner organizations, and training will be provided to pilot locations and other partners as determined appropriate by site.

Phase III is characterized by evaluating test results for the front-office reengineering and providing subsequent recommendations and decisions for nationwide deployment.

Phase III will realize the linkage between county, state, and national outreach plans in terms of objectives and performance measurement. Service Centers will be able to accurately identify under-served groups, assess varying needs, establish a plan of action, and leverage resources made available through partnerships. Progress at the local level will monitored with the assistance of state outreach coordinators, and information will be electronically shared with state outreach councils. Data will be reviewed, aggregated, and reported as appropriate to the NOC. State outreach plans will be updated periodically to reflect the progress being made through efforts at the local level.

Results and Benefits

Completion of Phase III will produce the following results:

- Increase eligibility and program participation by under-served individuals, groups, and communities.

- Improve the ability to reach under-served and remote areas.
- Decline in substandard housing.
- Increase in technical assistance provided to the under-served due to an increased awareness of USDA and partner organizations.
- Improve infrastructure (e.g., quality of health, utilities, transportation, etc.).
- Increase in options available to the under-served through expanded partnerships and leveraged resources.
- Reduce appeals and civil rights actions.

Enabling Technologies

Same as stated in Phase II.

Phase IV

Objectives

Evaluate Outcomes and Respond to Change. Phase IV will require an outcome evaluation and continuous improvement of implemented items based on the changing needs and demographics of under-served individuals, groups, and communities. Further change may be required due to changes in USDA policy as it pertains to the under-served, and/or new legislative initiatives or advancements in technology that improve access to benefits and services from remote locations.

Results and Benefits

- Greater responsiveness to the needs of the under-served.
- Reduced time identifying under-served groups and providing benefits and services.
- Increased ability to measure outcomes of targeted efforts to reach the under-served.

Enabling Technologies

New technology and improvement in previously state technology will be used to enable processes to reach the under-served.

3.3.1.2 Lending

The initial lending business area addressed any Service Center program's making funds available for public loans or grants. As a result of September 9, 1999, business leader meeting, the scope of the business area was expanded to include programs at the district, state, and national level, specifically the water and waste, business and industry, electric and rural utilities loans and grants. If additional resources are available, minimal impact on the schedule is anticipated as a result of broadening the business area's scope. The lending business area goal is to establish a seamless, one-stop shopping environment at and outside the Service Center for rural customers by using education, electronic tools, and streamlined common business processes. The schedule is located in **Appendix Q.**

Phase I

Objectives

Initial Activities—Concept Development and Definition. This phase encompasses defining lending scope, developing approach and project plans, identifying performance measures by phase, selecting a project team, initiating coordination with partner organizations, and beginning to reengineer lending activities across agencies. Central to the activity development is the definition of what encompasses front-office and back-office activities. Front-office activities are those that focus on dissemination of lending information and the acceptance of loan applications. Back-office activities are those that deal with processing, loan closing, and servicing of loans.

Results and Benefits

- ▲ Establish firm foundation to reengineer across agencies.
- ▲ Begin identifying common business processes for reengineering.

Enabling Technologies

- ▲ Shared customer information.

Phase II

Objectives

- ▲ Identify and implement "front-office quick hits" for business improvement.
- ▲ Begin back-office reengineering.
- ▲ Develop a training strategy for the Service Center employees.

During Phase II, quick hit objectives and back office reengineering will begin to be implemented. We will gather, consolidate and develop quick hit items (such as a consolidated lending resource book and the kiosk) and obtain approval to deploy them to the pilot sites. We will develop a training strategy for the Service Center employee to understand the goals of the lending project and the associated change management training that will accompany the program. During the last quarter of 1999, we intend to begin reengineering the back office tasks associated with lending programs. The reengineering efforts are expected to require additional resources as more lending programs are integrated into the SCI concept. The lending project will identify the business processes related to lending that could be reengineered for the Service Center. These components are a part of any lending program, whether it is to purchase farm equipment or a single family home. The reengineering will focus on the back-office activities dealing with the lending processes. A few of the processes being evaluated are the credit check processes, differences between the agencies and the commercial sector, the appraisal process differences and how those can be streamlined, the loan approval authority and the dollar limits associated with that approval authority, the appeals process, and the closing of a loan and how that can be reengineered. Software will be developed and implemented in the pilot sites as a proof of concept. We are expecting to begin designing and developing a national lending application software in the year 2000. The software will incorporate the best practices from all the current legacy systems and also incorporate the reengineered processes that have been implemented as a result of the SCI process. This phase would also see a major training effort in the Service Centers as new software and business processes are implemented.

Figure 3.3-2 shows how the Phase II lending objectives relate to higher level goals and objectives at FSA, RD and USDA.

Goal/Objective	USDA Goal	USDA Subgoal	FSA Goal	FSA Obj	RD Goal	RD Obj	Mgt Initiative
Implement quick hits	1	1.3	1		1, 2		4, 5
Begin back office reengineering	1	1.3	1		1, 2		4, 5
Develop a training strategy for the SC employee	1	1.3	1	3.3	1, 2		4, 5

Figure 3.3-2. Lending Phase II Goals and Relationships

Results and Benefits

Evaluate alternative means to distribute lending information (kiosk, Service Center staff training, other government entities).

Figure 3.3-3 depicts the quick hits and how they are centered around developing a consolidated lending book. Each of the quick hits will directly relate to the performance measures defined and are also related to Objectives 1 through 4 in the USDA County-Based Agency Study, completed by PriceWaterhouseCooper's Summary Report. The reengineering efforts will have benefits in Phase III.

Enabling Technologies—Front Office

- Kiosk-served pre-qualification software.
- Shared customer information.
- Common user interface.

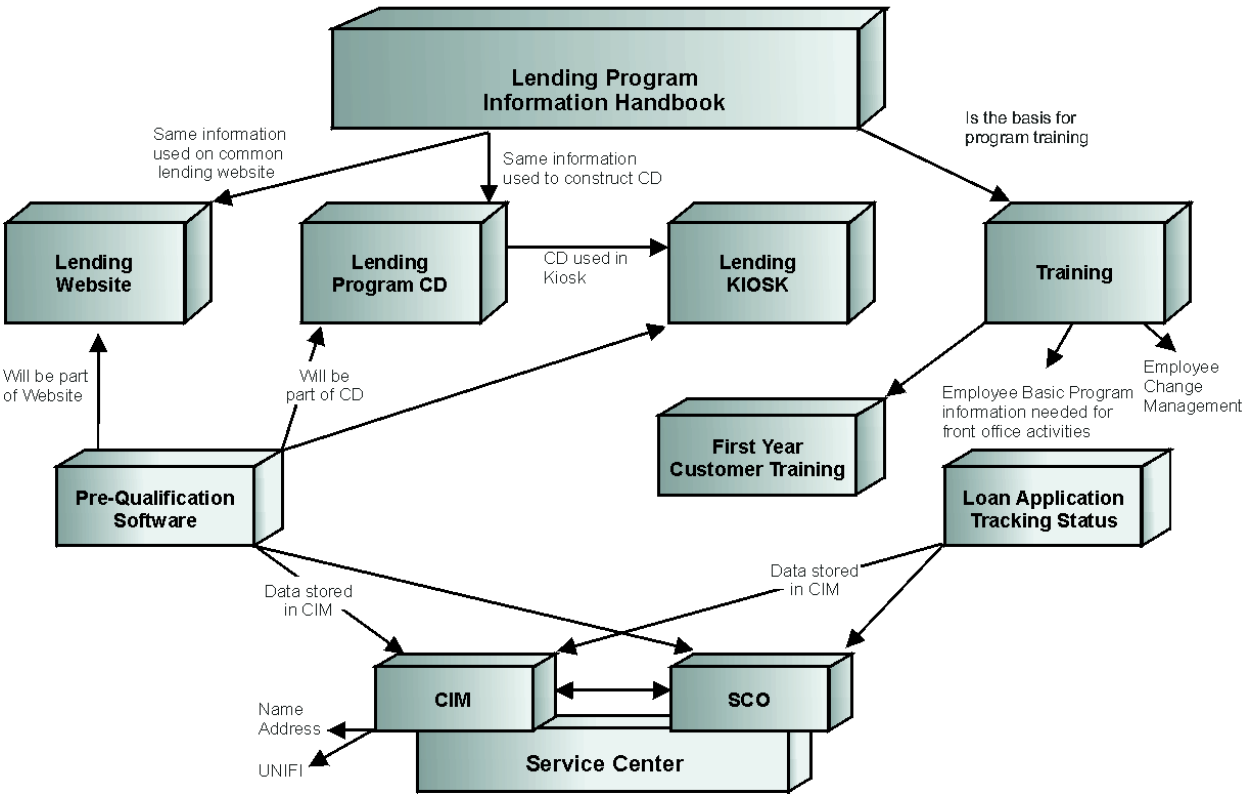


Figure 3.3-3. Information Relationships for Lending Quick Hit Actions

Phase III

Objectives

- Complete implementation of reengineered processes.
- Identify lending-related business processes.
- Begin designing and developing a national lending software application.
- Train Service Center personnel in the new software as it is implemented.
- Share data and lending information with other lending partners.

Phase III completes the reengineering of the lending business processes and achieves the full realization of the quick-hit benefits and reengineered processes, increasing customer

satisfaction and reducing operating costs. This phase is characterized by coordination with a variety of partners to fulfill reengineering goals. Those partners will include each of the USDA agencies that occupy a Service Center, as well as the local community leaders where kiosks may be positioned. This phase will also include the capability for Service Centers to effectively share data and lending information with other lending partners. Meeting this objective would allow Service Centers to provide an integrated source of information that can be shared both within Service Centers and with customers (SCI Goal 4, Objective 2).

Figure 3.3-4 shows how the Phase III objectives relate to higher level goals and objectives at FSA, RD, and USDA.

Goal/Objective	USDA Goal	USDA Subgoal	FSA Goal	FSA Obj	RD Goal	RD Obj	Mgt Initiative
Complete implementation of reengineered processes.	1	1.1, 1.3	1	3.3, 3.4	1,2	1.4, 2.5	4, 5
Identify business processes related to lending.	1	1.1, 1.3	2	3.3	1,2		4, 5
Begin design and development of a national lending software application.	1	1.1, 1.3	2	3.3, 3.4	1,2	1.4, 2.5	4, 5
Train Service Center personnel in the new software as it is implemented.	1	1.1, 1.3	2	3.3	1,2	1.4, 2.5	4, 5
Share data and lending information with other lending partners.	1	1.1, 1.3	2	3.3, 3.4	1,2	1.4, 2.5	4, 5

Figure 3.3-4. Lending Phase III Goals and Relationships

Results and Benefits

- Greater lending information available to a larger population.
- Reduced loan application processing times.
- A greater diversity of loans will be applied for due to increased awareness.
- Increased loan applications due to increased USDA program awareness.
- Increased customer awareness of his/her loan status.
- Greater awareness of USDA lending programs in the community.

Enabling Technologies

- Kiosk-served pre-qualification software.
- Shared customer information.
- Common user interface.

Phase IV

Objectives

Phase IV will require a balance of improving what has been implemented while remaining responsive to changes in the business area and enabling technologies. Continuous reassessment and improvement could be driven by new national lending priorities, emerging technology, and new legislative initiatives, such as more money being set aside for guaranteed loans instead of direct loans. Whatever the changes, Service Centers must remain responsive to the needs of both customers and keep all the USDA aware of lending programs.

- Remain flexible.
- Respond to input from public and Service Center users.
- Leverage web technologies.

Results and Benefits

- Continued strengthening of the Service Center concept and a greater increase in USDA presence in a Service Center rather than RD, NRCS, or FSA.

Enabling Technologies

- Kiosk-served pre-qualification software.
- Shared customer information.
- Common user interface.
- Web technologies.
- Common office automation tools.

Figure 3.3-5 shows how the Phase IV objectives relate to higher level goals and objectives at FSA, RD and USDA.

Goal/Objective	USDA Goal	USDA Subgoal	FSA Goal	FSA Obj	RD Goal	RD Obj	Mgt Initiative
Remain flexible	1	1.3			1, 2		
Respond to change	1	1.3			1, 2		

Figure 3.3-5. Lending Phase IV Goals and Relationships

3.3.1.3 Managing Risk

This schedule is located in **Appendix Q.**

Phase I

Objectives

Identify Priorities. The primary objective of Phase I is to analyze and partition the Managing Risk business area into manageable projects for reengineering, then to prioritize those projects for completion. Initial priorities were set based on projected Service Center level gains in productivity and efficiency as well as customer benefits, with Disaster Assistance (a risk recovery tool) and the Conservation Reserve Program (CRP) (a risk mitigation tool) selected as most important.

Because the Managing Risk business area encompasses a large portion of USDA's overall mission, reengineering in Phase I adopts a program-specific rather than function-specific approach. This allows SCI to work with program leaders to demonstrate rapid achievements and use that success to engage other program leaders. Once the reengineered systems of the initial pilot efforts are established, additional processes and functionality can be added, replicating the design across programs. **Figure 3.3-6** depicts the relationship of the activities to the current programs within the reengineering framework.

Activity*	Disaster Assistance	CRP	Crop Insurance	Price Support	AMTA	Land Management Technical Assistance	Marketing Cooperative Technical Assistance	Managing Risk Education and Training
Collect data, monitor conditions	✓	✓	✓			✓		✓
Design risk mitigation services/programs	✓					✓	✓	✓
Producer prepares risk management plan	✓	✓	✓	✓	✓	✓	✓	✓
Determine losses (area-wide and producer)	✓							
Apply for benefits	✓	✓	✓	✓	✓	✓	✓	✓
Deliver benefits	✓	✓	✓	✓	✓	✓	✓	✓

* Activities are taken from the Managing Risk business area activity model, shown in Section 2.

Figure 3.3-6. Relationship of Activities to Current Programs Within Reengineering Framework

Following this approach then, the reengineering design completed for the Disaster Assistance and CRP programs in the activity "Collect data, monitor conditions" would be replicated to crop insurance, land management technical assistance, and managing risk education and training in Phase III.

- Characterize the existing environment and formulate a business area vision.
- Analyze the business area to identify USDA's complete Managing Risk program/service inventory and cross-cutting functions performed within each program, regardless of Agency "ownership."
- Partition business area and prioritize projects.
- Design and pilot at least one proof-of-concept application to benefit Service Center staff and garner support of business leaders for continued reengineering. (CRP Environmental Benefits Index calculator was piloted.)
- Begin assessment of customer base to identify trends in farm structure. Assessment will inform Managing Risk business area planning to meet future customer needs.

Results and Benefits

- Prioritized projects selected to deliver early benefits to customers and Service Center employees
- Business leader support for reengineering across various programs and agencies

Enabling Technologies

- Basic office automation software.
- Legacy systems data.
- GIS.

Phase II

Objectives

Develop and Refine the Design. Phase II takes the analysis and priorities from Phase I and con-

verts them to a framework reengineering design that can be applied to all Managing Risk programs and services. Pilot deployment of a program-specific application in Phase I (CRP Environmental Benefits Calculator) provided useful information to guide the complete design of Disaster Assistance programs and the full CRP process. In addition, several quick-hit projects were piloted in Phase II. These projects, such as automated forms, offer Service Center employees moderate benefits at low cost and low risk. Quick hits will be nationally deployed in Phase III as interim tools while the more comprehensive reengineering projects complete development and pilot testing. This rollout strategy gives Service Centers incremental improvements over time, and allows the Managing Risk business area leaders the flexibility to respond to changes in the environment, which may lead to the initiation of new projects, or the re-prioritization or termination of existing projects.

Phase II also sees the design of the conversion of several front-office activities into back office tasks handled by new systems; for example, dissemination of program information and applications historically handled in the Service Center are transitioned to internet delivery, allowing customers direct access at any time and reducing the burden on the Service Center.

- Identify program-specific and cross-cutting business requirements.
- Design Disaster Assistance and full CRP tools for piloting.
- Continue reengineering design of entire business area.
- Develop strategy for migration of legacy data.

Results and Benefits

- User-guided design of processes and applications to increase usability of future systems.
- Begin to reduce burden on Service Center staff by shifting front-office activities to back-office delivery.

Enabling Technologies

- Strategy for legacy data transfer.
- GIS.
- Basic office automation software.

Phase III

Objectives

Replicate the Design. While Phases I and II involve a limited scope in a compressed time frame, Phase III broadens scope and steps up the resource and time requirements to achieve the overall objectives of the business area (listed in **Section 2**). Phase III replicates the Phase II framework reengineering design to other Managing Risk program and service areas, including:

- Crop insurance programs.
- Price Support.
- Agricultural market transition program.
- Risk-mitigating land management.
- Marketing cooperative technical assistance.
- Managing risk education and training.

In addition to the above program-oriented reengineering efforts, the activities in designing risk mitigation services and programs will also be reengineered. This provides the overall context to complete the reengineering of the Managing Risk core business area.

Significant changes in the Managing Risk environment may occur during Phase III, including a potentially new political administration, a new farm bill, and crop insurance reform now under consideration. Flexibility will be crucial to the

success of the projects during this phase, and all activities planned in Phase III have risk management plans to accommodate the potential requirements for redirection. Regardless of the changes, the Managing Risk business area executive sponsors remain committed to meeting the expectations of customers, Congress, the Secretary, and Service Centers.

Specific activities planned early in Phase III include:

- Piloting and national deployment of CRP quick hits, including automated forms and EBI calculator.
- Piloting of a web-enabled disaster event reporting database, followed quickly by national deployment.
- Piloting of a cross-agency data infrastructure; applications piloted and deployed later in Phase III will rely on this infrastructure.
- Piloting of comprehensive Disaster Assistance and CRP applications.

Results and Benefits

- Streamline benefit applications, eligibility determinations, and payments.
- Appraise disaster losses and issue payments arising therefrom in a more timely basis.
- Streamline compliance processes while reducing the burden on the customer.
- Improve projections of future risks and potential effects of disasters by improving the quality and accessibility of data used to make risk appraisals and automating their calculation.
- Implement an information infrastructure to facilitate the setup and delivery of various cross-agency programs enacted for managing risk in an expeditious manner to meet the expectations of producers, Congress, and other stakeholders.
- Provide customers direct access to program information, applications, and approvals through a variety of channels (e.g., Internet, kiosks, booklets, mobile Service Centers/vans, etc.).
- Increase the effectiveness of customer counseling and education on managing risk.

Results and Benefits

- Incremental improvements at the Service Centers as quick hits are rolled out nationally, followed by deployment of comprehensive applications and data.
- Improved public access to agency back-office activities over the Internet.
- Improved quality of managing risk services to producers.
- Speed payments to producers in times of natural disasters.
- Serve a greater number of customers through better use of time of Service Center staff.

Enabling Technologies

- Full deployment of CCE and L/W/V.
- Full GIS capability.
- National implementation of GIS data.
- Satellite imagery technology
- Common customer, land, and program databases.
- Transition and removal of legacy systems.

Phase IV

Objectives

Anticipate and Respond to Change. Phase IV activities shift from intense development, testing, and national deployments to maintenance operations and monitoring changes in the agriculture environment. New legislative initiatives, evolving trends in the agriculture sector, and changing demographics of the customer base call for quick response from the Managing Risk business area.

- Maintain information infrastructure to support new initiatives
- Quickly deploy automated and other tools to support new programs.
- Continue to improve business processes.
- Respond to changing managing risk needs and priorities.
- Identify and eliminate tools and processes that no longer meet business requirements.
- Monitor changing customer needs.

Results and Benefits

- Nationwide realization of objectives.
- Optimized program delivery structure and support

Enabling Technologies

- Technology and data in place nationally, take advantage of full infrastructure.
- Possible new technical architecture.
- Possible new communication and data technology
- Possible new GIS and/or GPS technologies.

3.3.1.4 Conservation and Environment

This schedule is located in **Appendix Q**.

Phase I

Objectives

Develop the Foundation. The Phase I objectives focus on developing the foundation necessary to reengineer conservation activities at the Service Center level. That foundation is realized through the Customer Service Toolkit (CST), which allows the mobile, onsite delivery of core conservation products and services through the use of a remote (stand-alone) computing laptop. Since a large percentage of Service Center conservation work is planning related, the initial CST functionality streamlines the planning process, allowing conservationists to create plans in the field with the customer. Once the technology of the CST is established, additional processes and functionality can be added to it, creating a comprehensive suite of conservation tools from a single platform, accessible from any location a conservationist may work.

- Identify the "as-is" environment and formulate a "to-be" vision for several conservation-related processes.
- Identify business requirements to purchase commercially available hardware and software.
- Define requirements for site-specific conservation planning.
- Design CST application.

Results and Benefits

Design and begin developing processes and tools that accomplish the following:

- Improve the quality of products and services to customers who want or need one-on-one service by allowing onsite service from resource planners.
- Optimize the time Service Center staff spends in the field by allowing personnel to use mobile and flexible computing equipment.
- Reduce costs.
- Eliminate the need to take notes in the field and re-enter information in the office.
- Emphasize a map-centered (geospatial) approach to managing customer files and program information.
- Increase ability to provide conservation alternatives to customers through GIS-based conservation planning.
- Minimize repeated trips to farms and other land units to collect and verify data.

Enabling Technologies

- Basic office automation software.
- Legacy systems data.
- Customized commercial software.
- GIS.
- Mobile computing.

Phase II

Objectives

Build on the Foundation. Phase II builds on the Phase I business foundation and seeks to continue reengineering the core conservation processes: resource inventory and assessment, develop and analyze treatment alternatives, implement and evaluate applied treatments, and provide conservation contract and program support. Pilot deployment of the CST in this phase will provide valuable information about how field conservationists use GIS in their day-to-day work routines. Pilot feedback will influence the design, development, and migration of the additional processes. These efforts are in alignment with NRCS strategic goals, which state that by 2000, resource assessment tools and data collection systems will be in place to monitor and assess changes in soil quality, grazing land health, wetland functions, and watershed health.

Phase II also begins identifying and evaluating commercial practices and technologies to support core processes. The conservation business area will work closely with the GIS business area to conduct a fit analysis of commercial GIS conservation tools. Phase II sees the identification of additional needs, and the evaluation of commercial tools and other independent initiatives to meet those requirements.

- Develop and deploy to pilots resource inventory and assessment applications: CST, conservation area resource assessment and analysis, and wetlands and easements.
- Assess and measure results of pilot testing.
- Modify applications based on feedback and test results.
- Begin building the business case for national deployment of the resource inventory and assessment-related applications.
- Continue reengineering of entire business area, to include the end-to-end conservation program delivery processes.
- Design and develop web-based tools to support the mobile computing environment and remote access to data. These tools include conservation planning and engineering models and possibly conservation program applications (e.g., EQIP).
- Provide conservation business area requirements to GIS team to support fit analysis.
- Survey conservation efforts nationally for consideration for inclusion in SCI implementation (e.g., Service Centers in Iowa are using Personal Digital Assistants in conjunction with Precision Lightweight GPS Receiver units to collect data on Emergency Watershed Protection sites).
- Based on the selection of the enterprise GIS architecture and the enterprise data model, assess the need for redesign of three applications.
- Develop strategy for migration of legacy data (generally contained in FOCS).

Results and Benefits

- Build in quality from the field perspective based on typical workday scenarios.
- Promote and facilitate the use of a mainstream computing environment by field staff to produce professional quality presentations, reports, and other products for the customer.
- Improve workflow among Service Center staff.
- Monitor use of CST in the field and identify obstacles to optimum use by field staff.

- Support a flexible and creative environment to deliver technical assistance.
- Reduce training costs through the use of commercial software.
- Promote sustainable conservation management of private and public lands.

Enabling Technologies

- Customized commercial software.
- GIS.
- Mobile computing.
- GPS units.
- Strategy for legacy data transfer.

Phase III

Objectives

Leverage Partnerships To Fulfill Reengineering Goals. Phase III completes the reengineering of conservation business processes. The industry survey begun in Phase II will be completed and will provide the basis for final selection of tools, and identification of remaining tools to be developed.

This phase is characterized by close coordination with a variety of Federal, state, and local agencies with whom Service Centers will share data; commercial vendors with products that support reengineered conservation processes; and technical and scientific organizations, such as universities, that have research or tools, which will increase Service Center efficiency. Preliminary industry survey results indicate that a number of tools are currently under development that are potential candidates for inclusion in conservation reengineering efforts and national deployment. The following tools projected for completion in the 2000 to 2003 timeframe are being considered for inclusion:

Resource Inventory and Assessment Tools

- CROPS.
- Grazing Land Assessment.
- GPFarms.
- HEL Determinations.
- NLEAP.
- Phosphorus Index.
- Pesticide Screening.
- MOSES/EGEM.
- Wildlife Habitat Index.

Development and Analysis of Treatment Alternatives

- TR-55 (Urban Hydrology).
- TR-20 (Watershed Hydrology).

The above projects by no means represent a complete catalog of independent efforts to develop conservation tools. However, in Phase III, the conservation business area will evaluate the quality and pertinence of specific tools, and incorporate those that contribute to the objectives of the business area. In addition, Phase III activities include:

- Nationally deploying applications and reengineered processes, including CST for networked environments, and Toolkit Express for non-networked environments.
- Redesigning to use the best-available data management practices.
- Deploying and improving web-based models and tools.
- Sharing information with customers and partners via web-based technologies.
- Providing customers and partners with the tools needed to be effective conservation stewards.

Results and Benefits

- Promote partnership with other Federal agencies, state and local governments, organizations, communities, and customers through data and information sharing.

- Improve public access to agency data.
- Provide interface and access to Internet resources from the laptop while in the field, providing field conservationists with easy access to natural resource data.
- Reduce duplication of effort between Service Center partners through data sharing and one-stop shopping for customers.
- Provide access to site-specific resource data over the Internet for customers who practice precision farming or for those who create their own conservation plans.
- Enhance credibility with customers, other agencies, and the agriculture industry as the quality and timeliness of services and products increase.
- Serve a greater number of conservation customers through better use of time of Service Center staff.

Enabling Technologies

- Full deployment of CCE and L/W/V.
- Full GIS capability.
- National implementation of GIS data.
- Common customer, land, and program databases.
- Removal of legacy systems.

Phase IV

Objectives

Remain Flexible and Respond to Change. Phase IV will require a balance of improving what has been implemented, while remaining responsive to changes in the business area and enabling technologies. The key in Phase IV is the continuous process of evaluating tools to identify those that have been overtaken by technology and are candidates to discard. Continuous reassessment and improvement could be driven by new national conservation priorities, emerging technology, advancements in conservation science, new legislative initiatives, evolving trends in agribusiness, etc. Whatever the changes, Service Centers must remain responsive to the needs of both customers and partners. Additional objectives include:

- Continue to improve business processes.
- Continue to implement new commercially available technologies that will enhance conservation analysis.
- Respond to changing conservation needs and priorities.
- Identify and eliminate tools and processes that no longer meet business requirements.

Results and Benefits

- Nationwide realization of objectives.
- Continued evaluation of science- and land-based, state-of-the-art technologies.

Enabling Technologies

- Technology and data in place nationally, take advantage of full infrastructure.
- Possible new technologies for managing and displaying DOQs.
- Possible new technical architecture.
- Possible new communication and data technology
- Possible new GIS and/or GPS technologies.

3.3.1.5 Administration

This schedule is located in **Appendix Q**.

CAMS Vision

In today's fast-paced business environment, operating principles and processes put in place 20 years, 5 years, or even a year ago no longer apply. Today's business strategies focus on flexibility, not size; teamwork and empowerment instead of command and control; and technology and outsourcing, not layers of middle management. Success, if not survival, hinges on how quickly the USDA can reevaluate, restructure, reorganize, or reengineer to better deliver prod-

ucts and services. To succeed in these arenas, it is vital that our infrastructure and our human, financial, and property resources are optimally managed to ensure resource mobilization is swift, on target, and measurable.

Multiple sub-systems will be put into place during the next 5 years to support the administrative management business area. Generally, these can be characterized as follows:

Human resources	One integrated HR system for all three SC agencies
Budget and financial management	Integrated budget planning and financial management system with interfaces between the SC agencies and with NFC's FFIS system.
Property management	Integrated property and asset management system between the SC agencies.

The first phase of this 5-year plan is the overhaul of core human resources business processes. Associated with this renovation are new policies and delegating authorities for all HR specialists in the three Service Center agencies. A commercial off-the-shelf (COTS) enabling system has been purchased to provide assistance and enable users to skillfully and efficiently manage the organization's most valuable and costly resource—our people. It extends the role of traditional HRMS systems to focus on self-service transaction processing combined with the ability to provide a comprehensive knowledge-base for tracking, understanding, and deploying the skills of the employee base.

Scope

As mentioned above, the CAMS project covers HR, financial, and property records, and electronic procurement. Phase I covers the following business processes and sub-processes:

- Agency profile management.
- Office location management.
- Occupational series management.
- Pay plan management.
- Personnel office management.
- Locality pay management.
- Classification standards management.
- Nature of actions management.
- Awards management.
- IDP management.
- Training implementation.
- Training evaluation.
- Performance plan management.
- Employee profile management.
- Position management.

Benefits to Business

Transaction Processing. The following represent the major benefits of CAMS for administrative management transaction processing:

- Integrated data between the budget, financial, human resources, property, electronic acquisition, and records management areas, and the ability to link information through business-defined relationships,
- The ability to define and use automated business rules.
- The ability to support image processing.
- The ability for automated process scheduling for redundant and pre-established due dates.
- The ability to use electronic signatures.

Decision Support and Executive Information. The following represent major benefits of CAMS for decision support and executive information:

- The ability to perform predefined and ad-hoc trend analyses within an integrated database of Service Center budget, financial, human resources, property, electronic acquisition, and records management information.
- The ability to perform predefined and ad-hoc projection and "what-if" analyses within an integrated database of Service Center budget, financial, human resources, property, electronic acquisition, and records management information.
- The ability to interface with Microsoft Office, including cutting and pasting data into Excel spreadsheets, using the Word mail merge function, and uploading and/or downloading appropriate data with Access.
- The ability to obtain graphical displays of detailed and summary information.
- The ability to interface with other third-party tools, including On-Line Analytical Processing (OLAP), e-mail and web-based systems.
- The ability to automatically schedule reports and execute them according to the defined schedules.

Workflow Management. The following represent the major CAMS workflow benefits:

- Steps within a business process will be identifiable as discrete business objects, and will be capable of being sequenced as determined by the agency.
- Workflow steps will be automatically routed to any employee within a Service Center agency, based on the "role" in the workflow.
- Routing methods will include the Internet, electronic and/or paper forms, and e-mail.
- Workflow steps will be able to interface with a worklist to queue a job on an employee's "to-do" list.
- Workflow management will: allow the creation, modification, and deletion of workflows; be able to manage employee access to specific workflows; be able to analyze active workflows to determine backlogs; and be able to log workflow completions to analyze workflow cycle times and bottlenecks.

Project Objectives

According to the approved CAMS–HR deployment plan, dated August 1999, the overall CAMS objectives are:

- Promote and utilize standard processes and procedures 99 percent of the time within and between the Service Center agencies.
- Reduce cycle time for all administrative processes by 75 percent.
- Eliminate 100 percent of non-value-added steps from all HR processes.
- Provide decision makers with a 400 percent increase in direct access to agency HR information.
- Empower all agency employees by providing them with direct access and authority to perform 100 percent of the tasks identified as "self service."
- Standardize administrative processes (where appropriate) into predefined workflows 99 percent of the time within and between the Service Center agencies
- Provide "enter once—use often" data-driven information systems to offset a shrinking administrative workforce.

Performance Measures

In moving towards the above objectives, CAMS–HR Performance Measures include:

- Reduction of cycle time for HR processes = 50 percent by 2001 as compared to baseline data from fiscal year 1998.

- Decision makers with direct access to HR information = 75 percent by of total decision makers by 2001.
- Employees using "self-service" performing HR tasks = 75 percent of total employees by 2001.
- Cost of processing developing and maintaining IDP = 50 percent reduction by 2000 as compared to baseline fiscal year 1998 cost.
- Cost of processing awards = 75 percent reduction by 2000 from fiscal year 1998 baseline cost.
- Time to develop performance plans = 50 percent reduction by 2000 as compared to baseline time of fiscal year 1998.
- Time to complete appraisal = 75 percent reduction by 2000 as compared to baseline times of fiscal year 1998.
- Cost to process training request = 50 percent reduction by 2000 as compared to baseline cost from fiscal year 1998.

In addition to the tangible benefits, the following list represents potential intangible measures:

- Greater customer satisfaction.
- Improved quality of products and services.
- Ability for better decision making.
- Fewer delays.
- Business processes not hindered by geographical separation of people.
- Direct measurements of business process for use in continuous process improvement.
- Shortening of "lead time."
- Cross-department/organization information sharing.
- Interactive and immediate analysis, rather than batch analysis.
- Windows interface (already known).

Pilot Strategy

The strategy for piloting CAMS-HR was a 1:4:45 approach. Florida, the initial pilot, was the first site with five additional sites being identified for an extended pilot during fiscal year 1999. Following the extended pilot, the agencies implemented the CAMS-HR system nationally.

Implementation Strategy

The CAMS-HR team is using the following approach for implementing the various key business processes of the human resources system. The approach is based on a phased implementation where each key business process (such as personnel actions, safety and health, employee relations) will be implemented in sequence of priority. For example:

The phased implementation approach reduces the overall staffing requirements by moving skill sets from one implementation of a key business process to the next. This phased approach makes efficient use of resources and allows the team to improve skills and techniques as it transitions from one implementation to the next.

The exception to this methodology was the complete and successful piloting of Phase 1, which occurred before the next phase began. Both the Florida pilot and the 5-state extended pilot were certified as a success before the above methodology was used.

3.3.1.6 Common Business Processes

Common business process projects support and interface across all business areas. Ini-

tially, all BPR projects were established within one of the business areas, even though a few overlapped—a need was not identified at the business level to support across the projects; this was viewed as a technology issue. However, as the projects have evolved, it became apparent how closely many of them need to work together, to integrate across agencies and business areas as early as possible. Common business processes integrate business requirements into the supporting infrastructure using a project approach.

Current Common Business projects include:

- **Service Center Information Management System (SCIMS)**—also known as the Integrated Core Project, it provides foundation core customer and core land data and integrates the two together for use by all programs. This foundation provides the framework for improved customer and land management by the Service Center. It enables the ability to service customers anytime, anywhere. Originally, this project was a number of separate, tightly related projects upon which most of the other projects depended. The agencies worked together to define customer and land information across agencies and across the nation to begin enabling customers to be served anywhere in the United States by any Service Center staff member (basic services). This also allows state and headquarter entities to get information on customer activities and trends directly and immediately. It sets the groundwork for the public to access and update its own information online.
- **Electronic Access**—defines standards for web-based applications and begins to establish a common infrastructure to allow optimization for web serving. Early users of this platform include a common directives project that serves the three county-based agencies' policies and procedures through a common web front end and begins to integrate the three into one common set.
- **Resource Data Gateway**—a centralized, web-based method to find and request GIS information from sources within the USDA, other government entities, and commercial concerns.
- **Demographics**—provides demographics data linked to land information for statistical reporting, outreach, and other purposes.
- **Land Use**—information that describes the current and eventually historical use of areas of land. Land use provides a foundation to support disaster, risk and productivity, and conservation planning programs. Examples of land use include urban, wetland, or crop land (with the ability to include further details such as row crops or corn).
- **Paperwork Reduction**—initiated to support USDA efforts to meet or exceed the paperwork reduction goals of the Paperwork Reduction Act of 1995. The primary deliverables of the project are internal recommendations for minimizing paperwork for Service Center agency and RMA customers, and a single, USDA-wide set of standards and guidelines for calculating and reporting burden estimates. These products will be developed within the framework of meeting three goals: minimize paperwork for end customers, maximize the usefulness of the information collected, and minimize the cost to the USDA for collecting, securing, maintaining, using, and distributing information.

All these efforts are currently underway. This schedule is located in **Appendix Q.**

Objective

The objective is to provide support for common business processes that cross business area and agency boundaries and provide an integrated foundation for the BPR projects to build.

Results and Benefits

- Cross agency integration.
- Common approach to improve efficiencies and provide USDA-oriented information.
- Reengineered method of accessing information and interfacing.

Enabling technologies

- GIS information.
- Integrating demographic information from outside sources into USDA framework.
- Shared customer information (uniquely identified across the agencies and across the nation).
- Shared land information (uniquely identified across the agencies and across the nation).
- Customer information linked to land information.
- Web technologies.
- Common office automation tools.
- USDA backbone.

3.3.2 Application Architecture

Phase I of the applications architecture is based largely on the impact of its neighboring architectures: the CCE team begins to specify some of the COTS building blocks; the data team begins to define its requirements for enterprise data views; and the business teams experiment with rapid prototyping, with users specifying application "look-and-feel" preferences. Because many users are only familiar with the existing terminal interfaces, exposure to Windows interfaces is an extended training-based transition. Applications architecture spans activities at the three development centers that have traditionally been independent and had a diverse approach to software development. A standards-based approach is begun, working in cross-agency teams. Approval processes are discussed and established. Tools, such as a web-based standards repository, are established.

Initial areas identified for applications architecture standards include:

- User interface.
- Data access.
- Three-tier (COM-based) standard.
- User manuals.
- Security.
- Training.
- COTS approach (common implementation of COTS products across projects).

The applications architecture achieves three main objectives:

- Integration across projects to prevent duplicative efforts.
- A flexible, standards-based architecture that allows projects to develop in different locations, yet creates an enterprise environment.
- A secure structure enforcing authorized access within the Service Center and preventing unauthorized access while information is in transition across the USDA backbone and at rest on a server.

The applications architecture provides a development framework, thus enabling user developed software and tailored COTS modifications. COTS software, usually specified through the CCE process, provides the foundation and key building blocks of the applications architecture. The applications architecture focuses on the integration of software across the projects—reducing duplicative efforts and leveraging the achievements of

similar projects, as well as establishing a secure applications approach to prevent unauthorized access and protect the information within the Service Center and as it travels the USDA backbone. Using COTS is maximized to meet business requirements. Supporting project applications leverage COTS, GIS, and database capabilities to meet specific business requirements. Office automation products are provided to support pilot sites. Office automation environment provides underlying software enabled capabilities to improve communications, analysis, and record maintenance functions.

This environment provides a foundation leveraged by additional unique business area applications. Initial business area applications—Service Center Organizer (SCO), Integrated Office Information System (IOIS), and Customer Information Management (CIM)—provide the core framework for improved business capabilities and enable the sharing of information across agencies and Service Centers. CST is the framework to support future conservation planning capabilities. CST is a mobile environment that supports improved customer service by enabling conservationists to develop conservation plans onsite during customer site visits. Additionally, it acts as a focal point to provide a future integrated conservation-planning environment.

In **Phase II**, the pilot locations validate the business applications supporting improved processes. Applications are integrated into the existing COTS environment, and leverage the capabilities provided through office automation and commercially available technology to support business needs. Initially, these applications will be directed at providing functionality to support defined business practices. While integration and testing are implemented by individual projects, projects supporting business areas will be integrated and deployed in logical business packages. Business packaging will provide common business area functionality while maximizing training opportunities and minimizing impact on Service Center operations. The establishment of a core customer management environment provides the foundation for integrating future applications and the eventual migration of legacy systems.

Initial integration efforts will focus on piloting a core application infrastructure, supporting the necessary customer management environment. This effort will couple the user interface and file management capability, initially provided through the SCO, with the existing CIM, CLU, and IOIS applications as integral components of SCIMS. SCIMS leverages the COTS foundation provided by the office automation environment, in addition to commercially available document management, database, and geospatial information environments.

Additional applications integration will include providing a conservation planning environment. The CST provides a centerpiece for delivering a mobile conservation environment, providing support for developing customer conservation plans, identifying certified wetland areas, identification and monitoring of easements, and wide area conservation analysis (CARAA). The conservation planning environment leverages existing COTS capabilities and tailors commercial applications to meet USDA needs and to provide customer and land linkages.

Phase III incrementally deploys applications to the Service Centers. Application distribution is based on application dependencies, legacy data migration, and availability of geospatial information. The core application infrastructure with an integrated customer

management environment is the initial capability provided.

The subsequent increments of integrated functionality will be deployed based on business requirements and resources. Applications supporting reengineered processes and migrated legacy systems will be piloted and deployed while being integrated into the Service Center architecture.

Phase IV realizes the completion of legacy system migration and provides additional analysis capabilities. Replacement applications will be based on reengineered Service Center processes to provide improved delivery of services to USDA customers and partner communities. New applications will be integrated into the existing applications architecture. Applications will enable the USDA and its Service Center to assess and analyze customer and community needs to most efficiently distribute USDA services and target critical USDA resources to support community priority areas.

3.3.3 Data Architecture

In this section, we first describe the overall objectives we are trying to accomplish in each of the phases in data architecture. We indicate the results and the benefits we expect to achieve in each phase. We also indicate the technology required to achieve these results, along with an indication of how these technologies will be applied.

We also describe how the three components of the data architecture—data administration, the physical data architecture, and data warehousing—will evolve through the four phases of SCI.

This schedule is located in **Appendix Q**.

Data Architecture Objectives Within Each Phase

The business objective of **Phase I** for the data architecture is to establish some core infrastructure requirements for implementing an enterprise-wide GIS. The core infrastructure includes defining the critical (digital orthophoto, soils, CLU, and demographic) and framework data (e.g., hydrography, transportation, public land survey, etc.); the data acquisition, integration and delivery strategy; and technical architecture recommendations. A proof-of-concept for the infrastructure was tested on important business processes using desktop GIS technology. Additional objectives include:

- Establishing the policy and standards that support enterprise-wide data management.
- Providing the mechanism to implement data administration throughout the system lifecycle.
- Enhancing and maintaining the enterprise data model.
- Developing a data warehousing strategy.
- Supporting the BPR teams in developing and integrating data models.
- To support CCE in evaluating and selecting data management tools.
- Supporting CCE in evaluating and selecting enterprise data/application servers.

Figure 3.3-7 identifies the results and benefits anticipated from the data architecture efforts the end of Phase I. **Figure 3.3-8** shows the enabling technologies required by the data architecture in Phase I, and how they will be applied.

Results	Benefits
Developed initial metadata and data standards for geospatial data.	Geospatial data acquired at all levels of the enterprise will integrate seamlessly and meaningfully. These standards were based on published Federal Geographic Data Committee (FGDC) standards.
Developed geospatial entity/attribute metadata collection mechanism.	Provides a mechanism for reengineering community (IT & business) to share a common view of emerging geospatial framework data as it relates to their business needs.
Produced initial set of critical and framework geospatial data themes for use in pilot testing. There are nine pilot sites made up of 11 counties. The following was completed (number of counties): ▲ 10 Digital Orthophoto ▲ 6 Common Land Unit ▲ 9 Soils	Provide a test-bed of "real-life" data so that BPR projects can accurately assess the results of the reengineered processes. Also, the production or framework data refines the strategy for the acquisition, integration and delivery of data nationwide.
Stood-up in-house Common Land Unit (CLU) digitizing centers.	Assess the cost-benefit of in-house vs. outsourced digitizing.
Refined specifications for geospatial data themes to meet specific business needs.	Provides a process for geospatial data requirements to be adjusted to the emerging business requirements.
Developed initial prototype of Resource Data Gateway.	Provides an initial proof-of-concept for the national delivery of geospatial framework data.
Developed initial GIS application prototypes for desktop and remote business processes.	Explore the use of common COTS GIS technology as it applies to the business requirements of the partner agencies.
Developed and piloted a GIS training strategy to train Service Center staff on GIS, COTS, and business specific software applications.	Provide a cost-effective, consistent method for delivery of GIS training to the Service Center community.

Figure 3.3-7. Data Architecture: Phase I Results and Benefits

Technology	Application
ESRI ArcView	GIS data visualization and desktop and remote GIS application development.
ESRI ArcInfo	Professional GIS for integration of geospatial themes.
GDE SocketSet	Image processing software for the mosaic and radiometric correction of the digital orthophoto base layer.
Microsoft Access	Local DBMS for storage of tabular data related to geospatial themes.
FGDC Metadata Server	Initial prototype for data discovery through the National Spatial Data Infrastructure.
FGDC metadata collection tools	Allows for the consistent, distributed collection of FGDC compliant metadata.
Data Modeling Tools	Allows for the consistent, distributed collection of geospatial entity/attribute metadata.

Figure 3.3-8. Data Architecture: Phase I Enabling Technologies

In **Phase II**, the Service Center customers will begin to realize the benefits of investing in the GIS data infrastructure defined by the Data Management Team. All the pilot sites will have received their initial delivery of critical geospatial data, a subset of framework data, and initial training. In this phase, reengineered business applications will take full advantage of a common set of integrated GIS themes based on business requirements. Maintenance of delivered data will also begin. Additional objectives include:

- Migrating all work to the Data Management Branch of the new Information Technology Service (ITS) organization.
- Implementing an operational Data Administration program.
- Supporting the use of standard data elements and components.
- Supporting implementation of the Data Steward Program.
- Supporting and coordinating the BPR's data modeling requirements.
- Enhancing the enterprise data model.
- Developing and implementing a concept of operations for the data warehousing initiative.
- Supporting implementation of the enterprise-wide data warehouses.
- Supporting testing of integrated data management tools across the enterprise.
- Developing a system migration strategy that links business and information requirements.
- Implementing the physical data architecture (physical location of the data) for the core projects: CIM and CLU.

Concerning the BPR work initiated in Phase I, the Data AID and GIS training teams will recommend an integrated national strategy for deployment of data and training. This strategy is based on BPR and prototype providing important insight to the recommended strategy.

During Phase II, the technical architecture will provide a migration path from stand-alone, proof-of-concept applications to tightly integrated, highly distributed applications. Because of the size and importance of the integration of GIS related business processes, data, and technology, they will be managed as a subset of the overall integration effort. Key components of the GIS integration include establishing a GIS COTS evaluation system, consolidating GIS requirements, and piloting advanced GIS data management technology.

Figure 3.3-9 identifies the results and benefits anticipated from our data architecture efforts the end of Phase II. **Figure 3.3-10** shows the enabling technologies required by the data architecture in Phase II and how they will be applied.

Results	Benefits
Begin the national development of critical and framework geospatial data. This includes the completion of (number of counties): ▲ 1,600 Digital Orthophoto ▲ 100 Common Land Unit ▲ 600 Soils	Will provide a standard set of required geospatial data to a given number of Service Centers based on priorities set by the partner agencies.
Maintain existing critical and framework data.	Provide up-to-date geospatial information to the user community.
Complete recommendations for national geospatial data AID strategy by September 1999.	Provide a clear recommendation for a national implementation of geospatial data acquisition, integration and delivery.
Ongoing shared management of GIS data through outside partnerships.	Establish a mechanism for sharing the cost of acquiring geospatial data for use at the Service Centers. Also look for ways to leverage existing data acquisition efforts.
Prototype Resource Data Gateway, Phase 1 by July 1999.	Provide a mechanism for testing various data delivery strategies and technology.

Figure 3.3-9. Data Architecture: Phase II Result and Benefits (Page 2 of 2)

Results	Benefits
Pilot integrated GIS business applications exercising the CCE architecture put in place.	Allow users and customers to more easily access shared geospatial data stores and common geospatial applications.
Integrated Customer Information Management/Common Land Unit process and application.	Allow for an integrated geocentric and customer centric view of data and applications.
Integration of new GIS technology and legacy systems in the field.	Provide a migration path for legacy Service Center systems and mitigate risk in disruption of service and redundant data entry.
Integrated and phased geospatial data/GIS training deployment plan by September 1999.	Provide a more-effective training program.
Establish a process for evaluating COTS GIS software candidates for inclusion into the SC Pilot effort.	Reduce development and lifecycle maintenance costs by buying rather than building where appropriate.

Figure 3.3-9. Data Architecture: Phase II Result and Benefits (Page 2 of 2)

Technology	Application
Spatially enabled DBMS	Manage geospatial data in traditional object relational database structures to take advantage of inherit data management functionality.
Embedded GIS tools	Exploit the use of common, reusable GIS software modules for use in application development.
Web GIS	Leverage the use of emerging geospatial web technology for highly distributed GIS processing.

Figure 3.3-10. Data Architecture: Phase II Enabling Technologies

The data architecture objectives in **Phase III** are to:

- Manage an ongoing data administration program.
- Expand the physical data architecture to include other shared databases.
- Support the migration strategy for legacy systems through enforcing common data reuse.
- Fully defining two additional major subject areas in the enterprise data model.
- Continuing training of DBA on the new CCE environment.
- Implementing the technical infrastructure for data warehousing.
- Maintaining operational data warehouses.
- Managing change control processes for databases.

Figure 3.3-11 identifies the results and benefits anticipated from our data architecture efforts the end of Phase III. **Figure 3.3-12** shows the enabling technologies required by the data architecture in Phase III and how they will be applied.

Results	Benefits
Nationally deployed Resource Data Gateway by January 2000.	Provides a portal for data acquired and maintained centrally to be accessed and distributed nationwide in a cost-effective, reliable manner.
Continue implementation of national geospatial critical and framework data. This includes the completion of (number of counties): ▲ 3,000 Digital Orthophoto ▲ 2,440 Common Land Unit ▲ 2,200 Soils	Provides a common, integrated geospatial database for Service Center exploitation as reengineering is completed and GIS applications begin to deploy.
Maintain existing critical and framework data.	Provide up-to-date geospatial information to the user community.
National Implementation of Data Acquisition, Integration and Delivery recommendations.	Provides for the seamless creation, transmission and maintenance of geospatial data throughout the SC enterprise.
Data warehousing data marts.	Provide a seamless, distributed view of critical and framework data for use at all levels within the enterprise (i.e., SC, State, National) and to users outside the enterprise (i.e., other agencies, private industries, academia and the public).

Figure 3.3-11. Data Architecture: Phase III Results and Benefits

Technology	Application
Data replication	Increase the data availability to customers by making geospatial data available to all layers of the enterprise.
Data warehousing	Provide for effective mass storage and retrieval of geospatial data that currently resides on CD-ROM or tape.
Data marts	Provides for efficient use of geospatial data depending on the application (transactional, analytical, map display, data production).

Figure 3.3-12. Data Architecture: Phase III Enabling Technologies

Phase IV's primary objectives are to provide access to geospatial data anywhere, anytime, in a timely, consistent manner. Part of this vision is to leverage the similar efforts underway by other Federal, state, and local agencies participating in the NSDI by implementing interoperable geospatial data networks. This objective will effectively lower the lifecycle maintenance costs of updating geospatial data and improve the timeliness of data delivery to the users. Additional objectives include:

- Ninety percent of the common data elements should be registered within the corporate repository.
- Establish feedback mechanisms to strengthen the business/IT partnership.
- Reevaluate the scope of the repository to include legacy system information to support system migration.
- Continue to provide training for database administration.
- Continue to assess the enterprise physical data architecture requirements.

- Support data management tool suite evaluation, selection, and implementation for development centers and BPR pilots.
- Provide training in tool use.

Figure 3.3-13 identifies the results and benefits anticipated from data architecture efforts the end of Phase IV. **Figure 3.3-14** shows the enabling technologies required in Phase IV, and how they will be applied.

Results	Benefits
Continue implementation of national geospatial critical and framework data. This includes the completion of (number of counties): ▲ 3,000 Digital Orthophoto ▲ 3,000 Common Land Unit ▲ 2,600 Soils	Provides a common, integrated geospatial database for Service Center exploitation as reengineering is completed and GIS applications begin to deploy.
Maintain existing critical and framework data.	Provide up-to-date geospatial information to the user community.
Integration of SC with NSDI and promotion of partnerships with other geospatial data steward, private industry, and academia.	Provide seamless, timely access to nationwide geospatial data holdings in a plug-and-play environment.
Continued evaluation and insertion of geospatial technology innovation throughout the Service Center enterprise.	Lower the software maintenance costs and improve the effectiveness of service delivery to SC customers.

Figure 3.3-13. Data Architecture: Phase IV Results and Benefits

Technology	Application
NSDI Clearinghouse infrastructure.	Online access to national, state, local data holdings on demand.

Figure 3.3-14. Data Architecture: Phase IV Enabling Technologies

3.3.3.1 Data Administration

Phase I was the period of standards as it applies to Data Administration. This is consistent with our framework for enterprise data management. Overall goals were to:

- Develop a data stewardship plan and obtain authority from management to implement the plan.
- Identify data stewards and sponsors for mission-critical databases.
- Establish roles, responsibilities, and performance measures.
- Implement common data management policies, standards, and guidelines that ensure the ability to effectively manage and share data and information. These include:
  - Data Management Policy—establishes the data management policy for the partner Service Center agencies. The standards and procedures developed by the Data Team are in support of the policy.
  - Metadata Content Standard—defines the minimum metadata that projects must provide to populate the development center CASE tools and central repository.
  - Data Naming Standard—a data element standard was completed earlier by the Data Team and is being actively

maintained. Other naming standards will be developed.

- Metadata Repository Interface Standard—defines the physical interface between the central repository and development center CASE tools and other metadata sources.
- Geospatial Data Standards—establishes standards for defining, modeling, managing and integrating geospatial data sets.
- Data Management Deliverable Standards—a series of standards that defines the content of data management deliverables for each phase of the system lifecycle.
- Repository Administration Procedures—defines the operating procedures for the central repository, including procedures for updating metadata and extracting standard data elements, procedures for security, maintenance and daily operations, and procedures for establishing standard data elements.
- Enterprise Data Model Procedures—defines the procedures for maintaining the Enterprise Data Model.
- Business Integration Center Data Management Procedures—defines the activities the Data team will perform when software projects bring their deliverables to the Business Integration Center.
- Common Data Administration Procedures—defines the data administration procedures for managing common data, common test data, and software components that can be shared.
- CM/QA Procedures—defines the CM and QA procedures needed to support data administration's CM and QA Plans, covering change control, review, audit, and other processes.

A web site is being established to provide developers and data stewards with easy-to-access policies, standards, and guidelines. This information is organized by software development lifecycle phase.

Phase II's data administration objectives are to:

- Implement the identification, use, and management of standard data elements across all systems.
- Implement data management deliverables as part of the system lifecycle.
- Implement metadata repository administration and metadata management processes.
- Implement central metadata repository software, and integrate software development centers' CASE tools.
- Provide training in CASE tool interfaces with the repository.
- Provide assistance and support to system developers and data stewards in using metadata management tools.
- Select and acquire central metadata repository tools as needed, and integrate CASE tools for development centers.
- Implement the processes and tools for collecting and managing geospatial metadata.

In **Phase III** and **Phase IV**, the data administration objectives are to:

- Enforce standards.
- Provide modeling and metadata support to application developers.
- Support the agencies' business areas in establishing data requirements, and in implementing data administration roles and responsibilities within their organizations.
- Monitor data stewardship functions throughout the agencies.

- Provide administrative support for data element change control.
- Provide cross-divisional coordination of data administration for ITS.
- Support data administration functions in the area of tools and training:
  - Provide user training on CASE tools, data administration principles and standards, and the roles and responsibilities of developers and business users.
  - Refresh CASE tool technology as needed.
  - Maintain a central metadata repository with interfaces to CASE tools.
  - Establish shared metadata search engines and web links, as appropriate.
- In the area of data sharing and access:
  - Continue building and maintaining the Enterprise Data Model.
  - Establish frequent application development deliverable reviews to ensure data is shared and reused as appropriate. (Waiver process support).
  - Support initiatives to enhance user access to data.
  - Support data security.
- In the area of planning:
  - Evaluate and implement emerging technologies for administering data.
  - Establish long-term plans for integrating applications, implementing effective data storage, maintaining data security, refreshing policies and standards, and interfacing applications with data warehouses.
  - Establish methods to improve data administration processes.
- In the area of stewardship of common datasets:
  - Establish and support datasets shared across divisions and business areas.
- Provide database and warehouse support.

3.3.3.2 Physical Data Architecture

In **Phase I**, regarding the physical data architecture, the data architecture team:

- Worked with CCE to develop evaluation criteria for the selection of an enterprise-wide RDBMS.
- Prioritized the evaluation criteria based on categories of applications.
- Inventoried existing applications and identified current data management tools, and identified other characteristics needed to develop a data architecture plan.

In **Phase II**, in terms of the Physical Data Architecture, the data architecture team will:

- Support the procurement and implementation of enterprise-wide data management tools, including Database Management Systems (DBMS), server-based GIS, desktop GIS, data warehousing tools, and other tools as identified.
- Support CCE during the integration testing of the proposed technical architecture from a DBMS perspective.
- Begin implementation of a central database administration function.
- Implement the physical data architecture (physical location of the data) for the Core projects: CIM, CLU, and documents.

In **Phase III**, in terms of the Physical Data Architecture, the data architecture team will:

- Support the various data management organizations in the development centers during system reengineering and redesign.
- Continue implementing shared databases by supporting the expansion of the data architecture developed by the core project to include other databases.
- Conduct performance reviews of and enhance the data management tools environment.

Finally, in **Phase IV**, regarding the physical data architecture, the data architecture team will:

- Continue to evaluate current and proposed versions of vendors' products to assess their impact on the enterprise, necessitated by vendors' enhancing their product lines every 12 months.
- Monitor the metrics associated with legacy systems migration and new applications implementation to assess their impact on the enterprise.

3.3.3.3 Data Warehousing

In **Phase I**, regarding data warehousing, the data architecture team:

- Initiated and supported data warehousing pilot initiatives.
- Developed an enterprise implementation strategy for data warehousing.
- Worked with CCE to evaluate the scope of the technical architecture being developed to support the infrastructure for the three development centers.
- Provided input to the SCI Data Management tool, Twig, for evaluation criteria for the selection of enterprise data management tools (RDBMS[s]).
- Provided input to CCE for sizing enterprise data servers that would assist in determining the server operating system and platform to support enterprise delivery of data warehousing applications.
- Developed criteria for evaluating Extraction, Load, and Transformation tools.
- Developed evaluation criteria for OLAP tools.

In **Phase II**, regarding data warehousing, the data architecture team will:

- Develop a concept of operations that outlines the organization's strategy implementation plans.
- Implement the data warehousing metadata schema using the enterprise repository.
- Train the various data modeling teams within the three organizations on data warehousing—specific modeling techniques.
- Maintain an enterprise data warehousing data model.
- Review the various standards to ensure they reflect data warehousing requirements.

In **Phase III**, regarding data warehousing, the data architecture team will:

- Implement the concept of operations over the timeframe established for legacy system migration.
- Implement the decision support function of data warehousing.
- Provide logical modeling services to support physical database and data warehouse implementation.
- Establish a logical enterprise model for warehouse initiatives across the organization.

Finally, in **Phase IV**, regarding data warehousing, the data architecture team will:

- Continue to provide logical modeling services to support physical database and data warehouse implementation.
- Finalize the logical enterprise model for warehouse initiatives across the organization.

3.3.4 Technology Architecture

Phase I of the modernization effort will build on the completion of Service Center office consolidations and the piloting and integration testing of business and technical solutions.

The installation of the L/W/V telecommunications infrastructure, upon which the CCE will build, will also be completed in all Service Centers by summer of 1999.

The CCE project has been evaluating technology components and approaches to create a comprehensive technical architecture that will enable reinvented and reengineered Service Center implementation. Testing is being conducted in the integration laboratory against identified business requirements for legacy and reengineered business processes. Piloting successful components is also part of the evaluation to verify performance and suitability of the selected solutions within operational conditions. The initial technical architecture, to be published in June 1999, will provide the basis for technology acquisition and implementation. Technical architecture maintenance will be an ongoing effort to adapt to changes in the Service Center agencies' business and program missions, as well as evolution of the technology, itself.

In **Phase II**, the initial business and technical capabilities essential for the virtual Service Center will be provided. The first reengineered business applications will be enabled through the deployment of the first CCE components. Investments in replacement computer systems to address current equipment Y2K deficiencies are a critical component of this phase.

In **Phase III**, the BPR, data management, and technical architecture activities to support full implementation of the Service Centers will be completed. The remaining phases of the CCE will be implemented during 2001 and 2002, with migration of all applications to the new environment planned for completion by the end of 2003.

The Service Center environment optimization will continue through **Phase IV**, the full operational phase of the shared information system lifecycle. The CCE project will enable the optimization of that environment through technical architecture maintenance to adapt technology improvements to changes in business program and mission requirements. New products and technologies will be evaluated for adoption into the CCE framework to enhance and expand the Service Center agencies' ability to deliver services to their customers.

This schedule is located in **Appendix Q.**

3.4 Projects

3.4.1 Conservation Area Resource Assessment and Analysis (CARAA)

What is the CARAA Project?

The CARAA Project is one of 19 BPR projects identified under the auspices of the National Food and Agriculture Council (NFAC). These projects were selected for development because of their tremendous potential to improve customer service and increase Service Center efficiency. The CARAA Project was initiated to improve the process of county-wide resource assessment at the Service Center by increasing the assessments' consistency and scientific credibility.

Current Process

The current process is conducted to varying degrees of quality across Service Centers. Where a thorough scientific assessment does not occur, priority conservation areas may be selected for subjective reasons. In addition, priority conservation areas are often selected through a process relying on manual tracing, cutting, and rescaling of maps through a copier machine, counting dots, and using pla-

nimeters. This manual process inherently reduces the assessment's accuracy.

Reengineered Process

The CARAA application leverages modern geospatial technology to increase resource assessment accuracy and speed. The application will guide the user through several resource assessment processes, such as surface water quality and soil erosion. The user is able to view several data layers simultaneously to perform an analysis and draw conclusions. The step-through process will prompt the user with recommended data themes to overlay. The user will have the flexibility to add additional local data or change the assessment process to suit the local natural resource environment and its needs. Resulting products will display geographic areas that show potential for degradation of resources such as water and soil. This will increase the quality of the Service Center resources assessment and decrease the amount of time needed to conduct it.

Why Do We Need This Project?

- CARAA will enable Service Centers to provide scientifically defensible and professional representation of the most potentially ecologically sensitive areas.
- CARAA will provide several easy-to-use GIS procedures that will aid the pilot Service Centers in their resource assessment needs.
- CARAA provides better use and management of data resources by increasing the quality of data analysis and decreasing the time needed to perform it.
- CARAA products allow for the graphic display of critical geographical qualities in a format easily assimilated and understood.
- CARAA products will strengthen partnerships within government, research organizations and landowners.
- CARAA products will assist in the fair allocation of limited resources for conservation efforts.

How Will the CARAA Project Complete This Charge?

The CARAA Project is a team of field, state, regional, and national USDA employees charged with putting together a "how-to" guideline for conducting a resource assessment at the Service Center level with assistance from the Technical Institutes. This includes several GIS processes that will guide a user through a course-wide area resource assessment.

3.4.2 Service Center Information Management System (SCIMS)

The SCIMS Project is a combination of three existing BPR projects: CIM, CLU, and SCO. Additionally, it incorporates form templates and functionality provided through the Integrated Office Information System (IOIS). These projects were combined into one project for the near term because they provide a foundation on which all the other projects are based. SCIMS business infrastructure extends beyond the initial projects to support improved customer and land management by providing support for distributed document management, legacy data interface, and workflow support.

3.4.2.1 Customer Information Management

What is the CIM Project?

The CIM Project is one of 19 BPR projects identified under the auspices of the NFAC as part of the SCI. The CIM Project supports sharing and leveraging common customer information across agencies and programs. CIM

provides the ability to access and use common customer information across agencies, and supports the customer management beginning with initial customer interaction at the Service Center.

Current Process

Currently, each partner agency maintains its own customer and program information, files, and systems separately. Information is not shared across systems, and is not readily accessible by Service Centers. Duplicative entries leads to inconsistent information. Numerous forms and applications are manually completed. Dispersed files and incompatible systems cause inconsistent and incomplete customer information. The result is duplicate processes to collect, access, and maintain similar information.

Reengineered Process

CIM supports Service Center staff in accomplishing its mission with the ability to effectively access and modify customer information; identify, assess, and address customer needs; and seamlessly interface with supporting programs regardless of agency affiliation. Our target is to maintain one set of customer records that is electronically accessible by all agencies. Consistent and complete information provides Service Centers a common perspective of the customer and their needs. Customers are able to access records, obtain services, and conduct USDA business at any Service Center.

Why Do We Need This Project?

Service Centers are the focal point for accomplishing the USDA's mission of providing USDA services to the customers across the country. CIM acts to provide a single authoritative source for customer information. It improves customer management through a consistent common perspective of customers and their needs.

How Will the CIM Project Complete This Charge?

The CIM team is made up of state, regional, and national USDA employees augmented by field personnel. An initial prototype database, application, and training were provided to two pilot sites in conjunction with the SCO and the IOIS in September and October 1998. Follow-on deployments are scheduled for the remaining pilot sites in 1999, with additional functionality and legacy system interface.

3.4.2.2 Common Land Unit (CLU)

What is the CLU Records Maintenance Project?

The CLU Records Maintenance Project is one of 19 BPR projects identified under the auspices of the NFAC. These projects were selected for development because of their tremendous potential to improve customer service and increase efficiency in Service Centers. The CLU Records Maintenance Project was initiated to improve the management and sharing of farm and tract information.

Current Process

The current process relies on System 36 for managing farm and tract data, customer files for historical records and documents, and hard-copy maps showing tract and field boundaries. This disparate management system often requires field office staff to perform duplicate data entry for record changes. Customers' and Service Centers' informational needs are sometimes difficult to meet, requiring staff to search through collections of paper and electronic files.

Reengineered Process

The reengineered process will use a combination of a modern relational databases, data

warehousing, and a GIS to empower Service Center employees to digitize CLU boundaries and link those CLUs with all types of records, including program information, contracts, crops, acreage, and yields. Historical data will be stored electronically, eliminating the need to search for information in hardcopy customer files. The GIS component will allow the user to aggregate land information to generate county-wide reports quickly and easily, such as total cropland reporting. GIS will also automatically calculate acreage for farms, tracts, and fields, eliminating the need for planimetering and other manual acreage calculation procedures.

Why Do We Need This Project?

The CLU Records Maintenance application will:

- Improve customer service by providing timely, consistent, and accurate land information.
- Increase Service Center efficiency and responsiveness by reducing staff hours required to maintain farm records, including reconstitutions.
- Provide an easy-to-use GIS component that will allow the graphical representation of customer information.
- Increase the accuracy and consistency of acreage determinations.
- Provides better use and management of data resources by effectively linking all types of farm records directly to the land.
- Allow Service Center staff to offer their customers professional, high quality, and spatially accurate maps.

How Will the CLU Records Maintenance Team Complete This Charge?

The CLU Records Maintenance team is a diverse group of USDA business and information technology employees with field office, policy, and technical backgrounds. The team will analyze the current method of maintaining farm records, design a new system incorporating modern technology, and design and develop a more efficient and user-friendly system for maintaining farm records and meeting customers' needs.

3.4.2.3 Service Center Organizer

The SCO is not a traditional BPR project—it was not specifically identified as one of the selected BPR efforts. It has evolved through the need to integrate across the projects to (1) present one common user interface so that users had a seamless way to traverse across projects, and (2) manage all customer Service Center activity from a central point, regardless of agency. This concept introduces the USDA view of services to the public. A Service Center employee can answer a customer's basic questions, such as loan status or outstanding engineering documents, no matter with which agency the employee deals. When a customer needs specialized assistance, such as a Conservation Plan or Loan Deficiency Payment, a Service Center specialist can provide that service.

In addition to the common user interface and customer file management, SCO also presents and manages the IOIS office automation templates.

What Is the IOIS Project?

The purpose of the IOIS project is to provide USDA Service Center pilot site employees with products and procedures that promote information sharing, improve the effectiveness and efficiency of the workplace, and demonstrate the capabilities of the hardware and Microsoft Office tools provided through the SCI. IOIS includes: (1) more than 75 templates identified by project team members representing the FSA, NRCS, RD, SWCD); (2) training on practical, work-related uses of Mi-

crosoft Office tools, such as creating integrated office schedules, newsletters, spreadsheets; (3) an interface with the CIM database to enable core customer data to be automatically populated on customer documents; (4) an interface with the SCO for the storage and retrieval of IOIS templates; and (5) an interface to supplemental customer data to support the IOIS mass-mailing function.

Current Process

Currently, Service Center employees collect customer data using hardcopy forms. Blank forms are stored by each agency. In most cases, data on forms is filled in by hand or typewriter. Calculations are performed manually. Information repeated in several places on a form is written and/or typed numerous times. Some completed forms are illegible or difficult to read.

Reengineered Process

The templates developed through the IOIS project are stored electronically in a central repository accessible to all Service Center employees. Forms are printed as needed; blank photocopies are no longer needed. Data is entered using word processing software. CIM data, such as name, address, and phone number, is pre-populated on IOIS templates. Calculations are done automatically. Data repeated on a form is entered once and is automatically populated where required. Edit checks are made on many fields, such as date, to improve data quality. In addition, the data quality is improved by formatting requiring the user to enter the appropriate number of characters, the correct number of decimal places, etc. The completed form is legible, stored electronically (promoting the paperless office concept), and stored centrally for access across agencies.

Why Do We Need This Project?

- Core customer data will be automatically included on the form. The customer will only have to verify that the information is correct, rather than provide it on each completed form.
- The information entered on IOIS forms will be more accurate because calculations will be automated and edit checks incorporated to improve data quality.
- Blank electronic forms, form letters, spreadsheets, and other templates, and partially or fully completed customer documents will be stored electronically in a central location and shared by all agencies at a Service Center. IOIS forms can be stored centrally or forwarded from one agency to another via e-mail.
- The readability of information entered on IOIS forms will be significantly improved. The need for photocopies will be reduced, paper files could be eliminated, and office storage space needs will be reduced.

How Will the IOIS Project Complete this Charge?

IOIS templates have been deployed to several pilot sites. The team will continue to evaluate the templates' usefulness, make required enhancements, and develop new templates identified as high priority by the users. In the future, IOIS templates and those developed by Service Center employees will be made available via the Internet. This will not only give all Service Centers access to templates developed for or by pilot sites, but also serve as an inventory to inform everyone of what exists or is being developed.

3.4.3 Conservation and Reserve Program

What is the CRP?

The CRP was designated as a high impact area within the USDA for reengineering improve-

ment opportunities. CRP is a voluntary, long-term cropland retirement program that provides participants with an annual per-acre rent, plus half the cost of establishing a permanent land cover. Goals of the CRP are to support environmental improvements and reduce soil erosion on highly erodible cropland. The CRP involves diverse inter-agency program elements that rely on legacy-driven data processing. The key objective of the CRP project is to improve the CRP program's customer service and overall management and administration.

Current Process

Day-to-day administration, operations, and management of producer CRP programs rely on timely and comprehensive information gathering. This manually intensive method involves redundant information gathering and use of considerable NRCS and FSA resources to inform, service, process, and track CRP requests. Producer land-related information derived from hard-copy source documents and photography are costly and time-consuming to maintain. Producers negotiate for financial benefits based on land and soils analysis using data processing methods not centrally accessible to Service Center personnel during or before producer interaction.

Reengineered Process

The reengineered process will use modern geospatial technology to increase the speed and accuracy of determining the environmental benefits index and provide customers with an accurate analysis of CRP eligibility. This will allow customers to evaluate multiple alternatives in minutes rather than days, which would currently be required to recalculate alternatives. The analysis and requirements generated through the CRP project will be reusable in the reengineering of other conservation programs such as EQIP, WRP, WHIP, etc.

The joint agency processing will be streamlined to decrease the burden on customers and eliminate redundant reporting and time-consuming manual operations. The application processes will be web enabled to provide access from any location.

Why Do We Need This Project?

CRP program support can be delivered using a more cost-efficient and producer-oriented approach. The CRP project will increase accuracy and timely availability of producer- and operator-related information. Information linked to the most recent land, crop history, and county soil data will enable Service Center personnel to provide a detailed and up-to-date report status for pre-signup preparation. This will optimize the assessment of eligibility during CRP signup and reduce the burden of compliance oversight after contract approval. . NRCS and FSA Service Center personnel can reduce costs, increase accuracy, and deliver more comprehensive information while servicing producers' CRP requests.

How Will CRP Be Completed?

The CRP BPR team plans to have completed reengineering efforts for CRP by January 2000. System specifications for the development of a nationally deployable CRP application will be delivered based on BPR team recommendations. An updated CRP product is scheduled for release in January 2000, with full functionality scheduled to be piloted in the following signup period.

The initial objective for CRP Phase I was to successfully field a pilot site application which would demonstrate time and accuracy savings associated with FSA and NRCS personnel processing CRP applications at the county office. CRP Phase II will incorporate the CRP Phase I pilot deployment evaluation

using feedback from county Service Center personnel.

3.4.4 Customer Service Toolkit

What is the CST Project?

The CST Project is one of the BPR projects identified by the NFAC as part of the SCI. The initial version of the project provided for the "check out/check in" of customer information from server to client and back, giving the Service Centers remote computing capability. A major part of the project is customizing ArcView to create conservation planning, site-specific resource analysis, and contract support tools. These applications will meet the USDA Service Center agencies' and their partners' needs to conduct resource analyses and planning processes, and provide map products and decision alternatives to customers. In addition, the project includes developing NRCS Field Office Computing Systems (FOCS) legacy data extraction, a soils data viewer, and report wizard for Service Center use.

Current Process

Map products are provided by aerial photo reproduction, photocopy, overlays, or cut and paste. Plans are not geo-referenced other than a direct reference to a farm/field/tract number. Personnel use colored pencils, acetate, or other processes to highlight treatment areas. Acreage calculations are estimated or at best planimetered. Currently, there is no way to provide rapid, multi-layer resource analyses to customers. There also is no way to exchange information between Service Center agencies electronically.

Reengineered Process

The reengineered process will provide real-time map products to customers with an almost infinite number of possible iterations. Surveys using GPS can be imported directly into ArcView and displayed for the customer. Alternatives can be produced using intersect and unions of available data layers. Other needed products, such as soils maps, conservation practice maps, and customized views for the client, can be produced instantly. Products can be provided to the customer on-site, without the need of a office visit.

Why Do We Need This Project?

The CST will:

- Provide credible, accurate, and personalized maps.
- Improve data accuracy and quality.
- Increase customer confidence in data.
- Reduce customer costs.
- Increase service efficiency.
- Provide analysis capability to evaluate the interaction of all conservation programs.

How Will the CST Be Completed?

The client/server version of the CST will be piloted in Okeechobee, Florida; Payola, Kansas; and Scottsburg, Indiana; by July 20, 1999. An "express" version will be piloted in the remaining pilot sites beginning in July 1999. This version will not have the "check out/check in" capability; however, it will contain the report wizard, soils viewer, and the FOCS legacy extraction modules.

3.4.5 Disaster Assistance

What is the Disaster Assistance Project?

The Disaster Assistance Project is one of the BPR projects identified by the NFAC as part of the Service Center Initiative. The project was commissioned to review and reengineer the way USDA responds to natural disasters and assists the public when natural disasters occur. This includes improving disaster event reporting and tracking, customer outreach, program information collection and analysis, and spot-checking of disaster claims.

Current Process:

Currently, there are long delays between when a disaster occurs and when producers receive benefits due to:

- Different paper-intensive and burdensome processes and/or automated systems for each program.
- Time-consuming and manual methods for declaring/designating disaster areas.
- Inconsistent processes by which Service Centers obtain necessary approved yield and price data.
- Multiple levels of review and approval for some requests.
- Required data not centralized, integrated, or consistently accessible.

Reengineered Process

The Disaster Assistance project will build an integrated system that reduces the time between when a disaster occurs and when producers receive benefits by streamlining, simplifying, and standardizing disaster assistance programs. This system will use available geospatial, weather, and satellite data to increase disaster event analysis and reporting capabilities. Additionally, as a foundation to the envisioned system, the project will deploy several "quick hits" that Service Centers can use right away, including:

- Building the Systematic Tracking for Optimal Risk Management (STORM) database, a prototype disaster reporting database, to begin tracking disaster event information.
- Distributing an automated spreadsheet to help Service Center employees calculate Noninsured Crop Disaster Assistance Program (NAP) payments.
- Developing a Disaster Assistance Information Booklet for Service Center and customer use.
- Placing disaster assistance information on electronic kiosks.

Why Do We Need This project?

The Disaster Assistance Project will:

- Provide disaster assistance benefits/loans to the producer in a more timely manner.
- Eliminate manual calculations and reduce errors in calculations.
- Increase the timeliness of designations and NAP requests.
- Increase the number of crops for which price, yield, and payment factors are approved before crop year.
- Increase disaster assistance program awareness.
- Reduce the time spent by producers and employees filling out paperwork.
- Reduce the time required to perform spot checks.

How Will the Disaster Assistance Project Be Completed?

The Disaster Assistance Project will deploy several "quick hits" that Service Centers can use right away to improve disaster assistance. The project will also develop an integrated system that is flexible enough to meet the needs of any current or future disaster assistance program.

3.4.6 Lending Project

What is the Lending Project?

Lending is any FSA, NRCS, or RD program making funds available for public loans or grants. The lending business area goal is to establish a seamless, one-stop shopping environment at the Service Center for rural customers and Service Center employees for lending activities by using education, elec-

tronic tools, and streamlining common business processes.

Current Process

Lending processes and information are stovepiped in each Service Center, depending on the type. Lending programs are across multiple agencies with multiple incompatible systems. Non-loan Service Center employees have little to no knowledge of the USDA lending process, and may be unable to answer customer inquiries.

Reengineered Process

Service Center employees have an awareness of USDA lending programs and provide seamless lending delivery to our rural customers. It is the intent of the quick hits to migrate all front-office lending actions to each of the Service Centers, allowing a customer to pick up all USDA lending information at any of the Service Centers across the country. A well-trained Service Center workforce able to assist the customer with lending questions and application procedures for all USDA programs will be developed. Long-term goals are to streamline the loan activities such as information gathering; evaluating components; and determining eligibility, feasibility, security and prioritization. Reengineered processes need to make program delivery less costly, more efficient, and seamless to the customer.

Why Do We Need This Project?

Lending is one of the largest business areas in the USDA. It is an essential service for USDA customers—one that supports their continued operations and success. The USDA must effectively provide essential lending information to customers and be responsive to their questions and needs. It is every Service Center employee's mission to ensure that he or she can effectively provide information and answer basic queries. Educating the Service Center team and developing an awareness of lending programs ensures the delivery of information and applications to all customer inquiries.

How Will the Lending Project Be Completed?

Lending business area projects can be broken down into two layers of activities: short-term (quick hits) and long-term. Quick hits are to begin at nine pilot sites in August 1999, with reengineering occurring by the end of 1999 at the same pilot sites. In the year 2000, all Service Centers will see quick hits and reengineering implemented in some form.

- **Short-Term Goals** (quick hits)—Ensure awareness of lending programs across Service Center employees and the customers they serve providing seamless lending delivery to our customers.
- **Long-Term Goals**—Identify lending best practices across all Service Centers. This also will include applying information technology solutions to the Service Centers where appropriate, and cross-leveling resources for identified back office tasks.

3.4.7 Paperwork Reduction

What is the Paperwork Reduction Project?

The Paperwork Reduction Project was initiated to support USDA efforts to meet or exceed the paperwork reduction goals of the Paperwork Reduction Act of 1995. The primary deliverables of the project are recommendations to NFAC for minimizing paperwork for Service Center agency and RMA customers, and a single, USDA-wide set of standards and guidelines for calculating and reporting burden estimates. These products will be developed within the framework of meeting three goals: minimizing paperwork for end customers, maximizing the usefulness of the information collected, and minimizing the USDA's

costs for collecting, securing, maintaining, using, and distributing information.

Current Information Collection Environment

Virtually all interaction between the USDA Service Center staff and their customers depends on the exchange of information. Individual agency efforts to establish or manage information collections lack a collaborative view and approach, resulting in independent collections of the same or similar data from common farming and ranching entities. Limited amounts of information are shared among partner agencies.

A significant burden is placed upon USDA customers in terms of the amount of time it takes to provide information, and a significant cost is associated with collecting information. There are no USDA-wide standards for calculating or reporting burden hours and costs; each agency calculates and reports burden somewhat differently. Further, the costs of these non-standard approaches and the impact on USDA customers has been identified and reported through other USDA forums such as the Civil Rights Action Team (CRIT).

Future Information Collection Environment

Service Center agencies and RMA will share and reuse collected information to the maximum extent possible. As a result, customers will spend less time responding to information requirements. A standard burden calculation method will be used to maintain an accurate burden baseline, which can be used to measure improvements resulting from reengineered business processes under the SCI.

Why Do We Need This Project?

The information collection analyses under the Paperwork Reduction Project are a critical link between agency collection activities, Service Center BPR projects, and OMB reporting requirements. The Paperwork Reduction Project brings an enterprise-wide focus to single agency initiatives and a framework for integrating collections and calculating/reporting burden and costs collaboratively across the Service Center agencies and RMA.

How Will the Paperwork Reduction Project Complete This Charge?

The Paperwork Reduction Project will: (1) develop an inventory of current information collections; (2) identify common and shared data fields across forms currently in use; (3) document existing burden hour and cost calculation procedures; (4) develop models for calculating burden hours and costs that can be implemented USDA-wide; (5) recalculate current burden using the new models and establish an accurate burden baseline; (6) identify and document best information collection practices in government and industry; and (7) recommend improvements in information collection instruments and processes to NFAC.

3.4.8 Risk and Productivity Assessment Project

What Is the Risk and Productivity Assessment Project?

The Risk and Productivity Assessment Project is one of the BPR projects identified by the NFAC as part of the SCI. The project will improve the business processes associated with determining crop risk appraisals and potential yield estimates, as well as the methods used to communicate productivity, risk, and disaster designations.

Current Process

Tools used to evaluate and communicate yield potentials and risks are produced inconsistently, and results from one agency are seldom used by other agencies. Maps are often available only in hard copy. Maps also are some-

times scanned to produce electronic copies, and then printed and reproduced, resulting in quality degradation. In addition, many geospatial program elements are based on county-level values instead of values relevant to individual producers.

Reengineered Process

The Risk and Productivity Assessment Project will reengineer and automate processes used to:

- Evaluate individual farm (commodity crop land) productivity potentials.
- Examine conservation program effects.
- Designate disaster areas and estimate impacts.
- Communicate assessment information throughout the USDA and to agricultural producers, private industry, and the general public.

Why Do We Need this Project?

The Risk and Productivity Assessment Project will improve USDA assessments of crop yield, revenue, and risk potentials. It will also improve the use of this information at the local Service Center and RMA levels, and the summarization of information for executive level use. In addition, the project will:

- Decrease RMA's overall crop insurance loss ratio.
- Provide timely and comprehensive disaster area assessments to the Secretary and other interested parties.
- Identify risk mitigation strategies in conjunction with conservation practices more dynamically and quickly.
- Use agronomic and geospatial data to improve producers' understanding of their production potentials and risk factors.
- Streamline and expand service delivery and analyses not possible with present resources.

How Will the Risk and Productivity Assessment Project be Completed?

The Risk and Productivity Assessment Project will develop a common application allowing Service Center agencies to analyze and share yield potentials and risk information. This application will create higher-resolution map and data analysis products that communicate crop risk and productivity information to local producers, agribusiness, and local government. The project will apply existing crop growth models to develop trends and evaluate the impact of climatic events on crop losses. These crop growth models will provide the baselines for the New Crops Program and help in evaluation of crop suitability to the environment.

The Risk and Productivity Assessment project will improve USDA assessments of crop yield, revenue, and risk potentials. The project will also improve how this information is used at the local Service Center and Risk Management Agency levels, and how the information is summarized for executive level use.

3.4.9 Wetlands and Easements

What is the Wetlands and Easements Project?

The Wetlands and Easements Project is one of the BPR projects identified by the NFAC as part of the SCI. The project consists of customizing ArcView to create the Wetland Determination and Environmental Easements Toolkits. These applications will meet the USDA Service Center agencies' and their partners' need to conduct and digitally capture certified wetland determinations and to digitally capture and monitor easements.

Current Process

Service Centers manually complete certified wetland determinations. The process includes reviewing hardcopy materials, such as FSA

slides, color infrared (CIR) photography, soils surveys, previous wetland determination maps, hydrology lists, aerial photos, topological maps, and climatic data. The process also includes drawing certified wetland boundaries on hard-copy maps that are often difficult to read. This process may require employees to adjust for scale differences by projecting, tracing, reducing, and/or enlarging images.

Easements are currently drawn on hard-copy maps using a similar process. However, easement monitoring is not completed on a regular basis since most states have not developed a monitoring protocol.

Reengineered Process

The project will reengineer the certified wetland determination process by developing a Wetland Determination Toolkit that is user friendly, enables heads-up or GPS digitizing of certified wetlands, and provides customers with a standard package of maps, documentation and information.

The project will streamline the easements monitoring process by providing an Environmental Easements Toolkit that is user-friendly, graphically records easement boundaries using GPS, records monitoring data in a graphical/tabular format, and provides customers with a standard package of maps and information. In addition, these tools will help the user input monitoring information into a database accessible by program managers. The project will also develop an electronic three-ring binder containing wetland and easement reference materials.

Why Do We Need this Project?

The Wetland Determination and Environmental Easements Toolkits will:

- Provide credible, accurate, and personalized maps.
- Improve wetland and easement data accuracy and quality.
- Increase customer confidence in data.
- Ensure that environmental and societal benefits are quantified.
- Ensure program accountability and integrity.
- Provide analysis capability to evaluate the interaction of all conservation programs.

How Will the Wetlands and Easement Project Be Completed?

The Wetland Determination and Environmental Easements Toolkits will contain customized ArcView tools that help Service Centers complete certified wetland determinations and manage and monitor easements. The applications will be deployed to California; Maryland; and Okeechobee, Florida; beginning in spring of 1999.

3.4.10 Outreach to Under-Served Project

What Is the Outreach to Under-Served Project?

This project will design a process to identify the needs of the under-served and implement strategies and solutions that increase funding to under-served communities, groups, and individuals to improve housing facilities, water and land quality, businesses, agriculture and the overall community structure. Processes and recommendations for targeted outreach to the under-served will be documented in a handbook that can be used as a reference for field office staff. Training and the appropriate tools, such as mobile offices, kiosks, and teleconferencing capability, will be provided as they are key to improving the delivery of benefits in remote locations.

The scope of this project includes outreach to groups, individuals, and communities and includes but is not limited to non-traditional and previously excluded customers with an emphasis on the following under-served groups: minorities; women; small farms; farm workers; limited resource customers; and previously excluded (to include the elderly and disabled).

Current Process

Currently, USDA provides limited services to customers where there is not sufficient USDA presence. This is especially true for the limited resource, socially disadvantaged, and remotely located communities, groups, and individuals. An integrated, multi-agency process for outreach at the local level does not exist.

Reengineered Process

The Outreach to Under-Served handbook provides a step-by-step "how-to" guide for conducting outreach to the under-served. Specifically, the handbook recommends processes to identify under-served areas and potential customers, conduct a needs assessment, develop a county outreach plan or strategy, establish partnerships and implement solutions that address real problems. The handbook also addresses the use of enabling tools, such as mobile offices/vans, kiosks, and teleconferencing equipment, to maximize outreach efforts.

The overarching concept is to design an uniform process that integrates outreach at the local level and provides a suite of tools that each county can chose from based on what will be most effective to meet the needs of the under-served in their geographic area.

Why Do We Need This Project?

This project is the key to bringing "visibility" to those who need USDA services and benefits the most, whether they are remotely located or not sure where to turn for assistance.

The Outreach to Under-Served Project is conducted in close coordination with national and state outreach efforts initiated by the Secretary Glickman. Reengineered activities in conjunction with the tools, training and partnerships to leverage resources will ensure that the goals of state and national outreach plans are achieved.

How Will the Outreach to Under-Served Project Be Completed?

The handbook will be provided to nine pilot sites in December 1999. A Phase II expansion is planned for August 2000 and will include testing in approximately 50 to 60 percent of the counties in four states. Mobile outreach tools, such as the mobile office, video network conferencing equipment, and kiosks will also be deployed beginning the first quarter of fiscal year 2000. In some areas, mobile offices will operate in partnership with 1862/1890 colleges assisting black farmers and 1994 colleges assisting Native American and Hispanic farmers.

3.4.11 Resource Data Gateway

What Is the Resource Data Gateway Project?

This project consists of two subprojects: Data AID and GIS Training.

3.4.11.1 Geospatial Data Acquisition, Integration and Delivery (Data AID) Project

The Data AID Project was initiated to define and reengineer the business processes associated with the acquisition, integration, and delivery of geospatial data to the Service Centers for building of the business case for national deployment.

The Data AID project team will define and establish the processes, policies and provide oversight for the enterprise-wide acquisition, integration and delivery of "best available" ready to use geospatial data themes. The Data AID team will address the business needs of Natural Resources Conservation Service, Farm Services Agency, and Rural Development, through the use of studies, testing data management producers, and development of prototypes in defining the business case and implementation of the geospatial data.

Current Process

Currently, efforts by Service Center partners to support geospatial data use are disparate, inefficient, and not scalable for enterprise implementation. Service Centers spend a good deal of time acquiring, reformatting, and translating geospatial information before being able to use it to service customers. Products being used comprise digital and paper based maps, and aerial photography products.

For example, each Service Center agency has its own paper maps for which it is responsible to collect, record, and evaluate geospatial data. Because the maps used by different agencies are not always the same type and scale or year, it can be very confusing for the customer. When a change takes place on a farm, the customer usually reports the change to one agency, which makes the update to the records. Since the change is not communicated to all agencies, this results in only one agency with correct and up-to-date geospatial data.

Reengineered Process

The geospatial data acquisition, integration, and delivery process developed by the Data AID Project will enable one-stop shopping and easy Service Center and customer access to up-to-date, high-quality data. It will allow Service Center agencies to jointly maintain a Common Land Unit layer and provide consistent information to the customer. Information can be exchanged easily between Service Centers and customers and a detailed, consistent, and high-quality representation of the customer land, will result in reduced costs and faster, more accurate customer service

In addition, other Federal (e.g., Forest Service, Bureau of Land Management, National Park Service, EPA, etc.), state and local agencies will be able to use non-sensitive digital data developed by the Service Center agencies.

Why Do We Need This project?

To define the means and mechanisms to be use to provide the Service Centers with complete, accurate, and authoritative geospatial data, by establishing a nationwide process for consistent acquisition, integration, and delivery of geospatial data to Service Center staff and customers. To define the means to deliver the geospatial data in seamless process that requires minimal Service Center employee time reformatting and uploading before use.

How Will the Data AID Project Complete This Charge?

The Data AID project will evaluate agency needs for infrastructure to support geospatial data acquisition, integration and delivery, review "best practices" of other agencies and organizations, and document alternative solutions or technical architectures that meet the needs and carry acceptable risks associated with deployment.

3.4.11.2 Geographic Information Systems (GIS) Software and Application Training Project

The GIS Software and Application Training Project is one of 19 BPR Projects identified under the auspices of the NFAC. These projects were selected for development because of

their tremendous potential to improve customer service and increase efficiency in Service Centers. The GIS Training Project was initiated to deliver GIS training to the nine pilot sites and develop a training strategy on how to deliver GIS training to all the Service Centers across the nation.

The GIS training delivered to the pilot sites includes the basics of GIS and an overview of the extensive GIS capabilities. The GIS training provided by this team sets the basis for other GIS-related projects (e.g., Wetlands and Easements, Toolkit, CARAA, CLU, etc.) to build on with more specific GIS applications.

Current Process

Currently, there is no organized GIS national training effort. One traditional way to train is using the classroom/lecture training method and delivering a standard course that is straight from the vendor. The training team used this approach for the first three pilot sites it trained.

Reengineered Process

The training team is testing different training methods in the pilot sites that may be more cost effective then classroom training such as web based training, user manuals, CD-ROM, and PictureTel (training multiple locations at the same time using videoconferencing). The training team plans to use what it learns from these different training approaches to help it develop the recommendation for the National Training Implementation Strategy.

After training the three initial pilot sites using the standard vendor course the training team worked with the vendor to design and develop a course that was customized to the USDA business processes to include FSA, NRCS, RD, and RM training exercises.

Why Do We Need This Project?

Without proper training on GIS and its uses in the Service Centers, the GIS users would be hindered in the amount of time it would take them to learn and use the GIS software. With effective training, the GIS users in the Service Centers will not only learn about the vast capabilities of GIS, but also how they can use GIS in their everyday job. GIS will enable the Service Center staff to: measure linear distance, determine area, print maps, and provide soils information to name a few of the many things GIS can do to improve the jobs of the Service Center staff, and the products delivered to USDA customers.

How Will the GIS Training Project Complete This Charge?

The GIS Training Project is a team of field, state, regional, and national USDA employees charged with assembling a National Training Implementation Strategy on how training should be delivered to Service Centers across the United States. This strategy will recommend the most cost-effective way to provide training to the Service Centers.

3.4.12 Demographic and Business Analysis Project

The Demographic and Business Analysis project is one of the BPR projects identified by the NFAC as part of the Service Center Initiative. The project will provide USDA Service Centers, state, and national offices with a user-friendly data warehouse that has current demographic information and automated business analysis tools. This data warehouse can be used to map and/or analyze customer information, agency facilities, services needed/provided, and other business management activities.

Current Process

Except for Rural Development, the Service Center agencies rely on individual agency manual processes for analyzing demographic or business data and they do not make adequate use of this data. Information on number and kinds of customers served or under-served is not available to all agencies. Decisions on kind and location of service providers are not based on the best available information.

Reengineered Process

The Demographic and Business Analysis project will leverage data warehouse technology to improve analysis of demographics and related data. The project team will identify new business processes that improve program effectiveness, efficiency, and customer service. The team will also provide USDA Service Centers and state staffs with a data warehouse that enables easy access to current, up-to-date demographic and programmatic data for mapping and other analysis purposes. This will help agencies to meet and exceed the requirements of Civil Rights Acts and the Equal Employment Opportunity (EEO) goals set in USDA.

Why Do We Need This Project?

The project will build on current Rural Development demographic data warehouses to provide Service Center agencies with comprehensive demographic and programmatic information. The Demographic and Business Analysis data warehouse will help each agency to better determine which customers are being served to improve customer service. This will be accomplished by providing:

- Access to potential equal opportunity and civil rights customer categories.
- Capability to determine whether a community's participation in USDA programs is representative of the community demographic makeup.
- Access to customer information on business operations and economic levels in a given area to tailor programs to the community's needs.
- Capability to interrelate demographic factors and integrate mainframe data to improve decision making.

How Will the Demographic and Business Analysis Project Be Completed?

The Demographic and Business Analysis project is acquiring and integrating demographic and business data from sources such as the Census Bureau, Census of Agriculture, Home Mortgage Data Act (HMDA), Dedicated Loan Origination and Servicing System (DLOS), guaranteed loan service, and Service Center agencies. This data will be provided via a data warehouse containing querying capabilities. Additionally, the project will develop methods to easily add new demographic data. The resulting database will be fully compatible with the Ag-Census data warehouse currently under development by the National Agricultural and Statistics Service (NASS).

3.4.13 Land Use

What is the Land Use Project?

The purposes of the Land Use Project are to define the common (non-program-specific) information pertaining to how land is used and to reengineer the processes involved in the acquisition and management of that information. This information would include crop, production and farming practices (fertilizer, pesticide application) data that is used in making various eligibility, compliance, and payment decisions. The acquisition and management reengineering effort will concentrate on reducing burden to the public, Service Centers, and partner entities.

Current Process

Currently, this data is collected and managed separately and often redundantly. Crop reporting is collected by FSA through the FSA-578 process; FCIC collects production data from reinsurance companies; state agencies collect fertilizer and pesticide usage, etc. The sharing between agencies is often informal and there is little, if any, use of alternative acquisition sources. This often results in duplicative producer reporting and use of out-dated or estimated information (e.g., disaster payments made from county production averages)

Reengineered Process

The Land Use Project will acquire information through producer reports, available geo-spatial data, and partnership entities. It will provide central management of that information to ensure a secure, reliable source of land use data for producers, USDA and partnership entities. This data-sharing capacity will eliminate redundant reporting requirements and will allow for more timely and relevant information through verification and updates during the program application process. Producers will be able to report information from a variety of sources, including the Internet, kiosks, and the Service Center. The data would then be accessible to the producer and serve as a management resource for their own farming practices.

Why Do We Need This project?

Land Use will:

- Eliminate redundancy capturing and storing data as well as redundant reporting requirements.
- Reduce processing time for obtaining, verifying, and sharing program and customer information.
- Allow for input and verification of data from multiple sources.
- Allow all farming interests to be reported from a single location.
- Reduce time spent by Service Center staff computing and processing common eligibility determinations and non-standard payments.
- Maximize the use of geospatial and partnership data to reduce producer's reporting requirements.

How Will the Land Use Project Complete This Charge?

The Land Use Project will gather the input of field, state, and national USDA employees to determine what information is needed, how it can be acquired and how it is used. Input from GIS and SCIT BPR areas will be assessed with partnership entity processes to formulate a pilot model. The results of the pilot will be used to base national deployment recommendations.

3.4.14 Combined Administrative Management System-HR

What Is the Combined Administrative Management System-HR?

Overall, the Combined Administrative Management System (CAMS) will serve as a tool for managing the resources of the Service Center Agencies. The vision is to provide a comprehensive, integrated, automated system that spans all aspects of administrative management utilizing common policies, procedures, workflows, and authorities.

The initial administrative functionality being developed is the human resources management system. Access will be by web for employees and supervisors and by direct client access for administrative personnel. The initial modules include Training Administration, Personnel Action Processing & Position Management, Performance Management, and Query Tools.

Current Process

Currently, the Service Center agencies utilize paper-intensive processes and procedures to conduct human resources activities for employees. The employees of the Service Center agencies are required to complete numerous forms that pass through multiple approvals before they are processed. The human resources personnel then manually enter the data into a mainframe-based system.

Reengineered Process

CAMS will promote and utilize standard processes and procedures to administer the human resources activities in the Service Center agencies. Employees will have access and authorities to perform tasks identified as self-service online reducing the cycle time of administrative processes. CAMS will provide managers and decision-makers with direct access to up-to-date agency information. The utilization of CAMS will enable human resources personnel to provide more strategic assistance in their agencies.

Why Do We Need This Project?

The loss of staff and expertise has generated a need to streamline and automate the front-end human resources processes. The CAMS project is essential to providing the system needed to reduce the time spent by field employees performing administrative activities and the human resources staffs in providing the employees with the most efficient and effective service possible.

How Will the CAMS-HR Be Completed?

CAMS-HR is currently being deployed, and states that are colocated will receive CAMS first. As decisions are made for non-colocated states, they will be scheduled.